FLEET OWNER

MARCH
1935

DEVOTED to the BETTE
OPERATION and MAINTENANC
of all AUTOMOTIVE FLEET

GRACE & BEARDSLEY
INCORPORATED
DETROIT

FEATURES IN THIS ISSUE:

PERATING A Truck Fleet With But Two Printed Forms — Synthetic Enamels Solve Refinishing Problem in Fleet of Assorted Vehicles — Operating a Cooperative Farm Fleet — Should Truck Springs Be Lubricated? — Engine Dynamometers Cut Running-In Costs — How Fleets Can Cooperate in Community Safety — Two Busy Bodies in United Parcel Service Fleet — Question-of-the-Month Reports on Brakes and Brake Lining — Trouble Shooters' Department

And Our Usual Cooperative Departments

"WE CAN'T TAKE CHANCES -THAT'S WHY WE USE GOODRICH SILVERTOWNS"

~ Says Fire Chief Hensley

NEW GOODRICH TRUCK TIRE PROTECTS AGAINST BLOW-OUTS—COSTLY ROAD DELAYS

Chief Burras Hensley of the Ashland, Ky., Fire Department.

WHEN the siren screams on the fire engine, seconds are precious. The fire apparatus *must* get through in double - quick time! Just think what might happen if a tire blew out!

In your business, too, truck tire failures are costly. The sidewall "Failure Zone" is stealing money from truckers every day—every minute. Most truck tires taken out of service prematurely are damaged right in the sidewall.

You can't see a break coming because it works from the inside out. You get no warning. Suddenly there is a BANG! The tire is flat! The casing ruined. Truck and driver lose time.

Wouldn't you like to end that kind of grief?

Well, Goodrich has a new kind of tire—a tire with a sidewall that is just as strong as the tread! The reason is Triple Protection. The tire is the Triple Protected Silvertown!

Why not take a tip from Fire Chief Hensley, who says, "We can't take chances . . . that's why we use Goodrich Silvertowns." If you want to play safe, get the tire with this 3-way protection:

1 PLYFLEX—a *new*, tough, sturdy rubber material with greater resistance to stretch. A layer of Plyflex in the sidewall prevents ply separation—distributes stresses—checks local weakness.

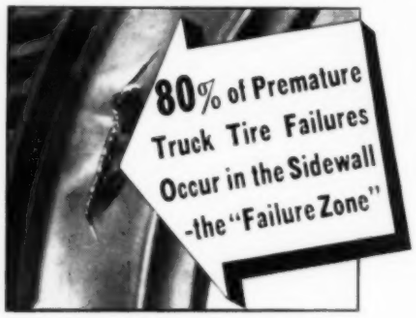
2 PLY-LOCK—the new Goodrich way of *locking* the plies about the bead. Anchoring them in place. Positive protection against the short plies tearing loose above the bead.

3 100% FULL-FLOATING CORD —Each cord is surrounded by rubber. With ordinary cross-woven fabric, when the cords touch each other, they rub—get hot—break. In Silvertowns, there are no cross cords. No friction.

This Costly Invention Costs You Nothing

Every Triple Protected Silvertown costs *more* to manufacture. But you don't have to pay one cent extra for this amazing tire!

FREE! Trucker's Handbook! Every trucker, every driver should have this big 44-page book. Gives commodity weights, load schedules, tire and truck data. Write for free copy. Dept. T-13, The B. F. Goodrich Company, Akron, O.



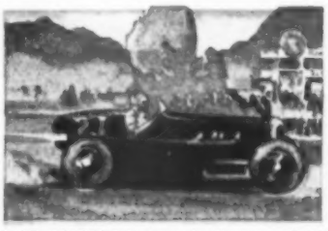
Goodrich *Triple Protected* Silvertowns

SPECIFY THESE NEW SILVERTOWN TIRES FOR TRUCKS AND BUSES

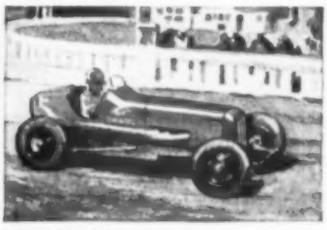
When a national product becomes international and outsells all others all around the world, it must possess singular merit. That is the simple but significant story of Champion Spark Plugs now in their twenty-fifth year of world service.

ITALY—*Tadini used Champions in his Alfa-Romeo when he won the Stelvio Hill Climb, a tortuous ascent to a summit of 9000 feet. Fog, rain and snow severely tested cars and drivers. Barbieri, driving a Champion-equipped Alfa-Romeo, was second.*

FRANCE—*Champions win the world over! Count Trossi, driving a Champion-equipped Alfa-Romeo, won the Grand Prix of Vichy; Whitney Straight in a Maserati was second; and P. Etancelin, driving a Maserati, was third. All were Champion users.*



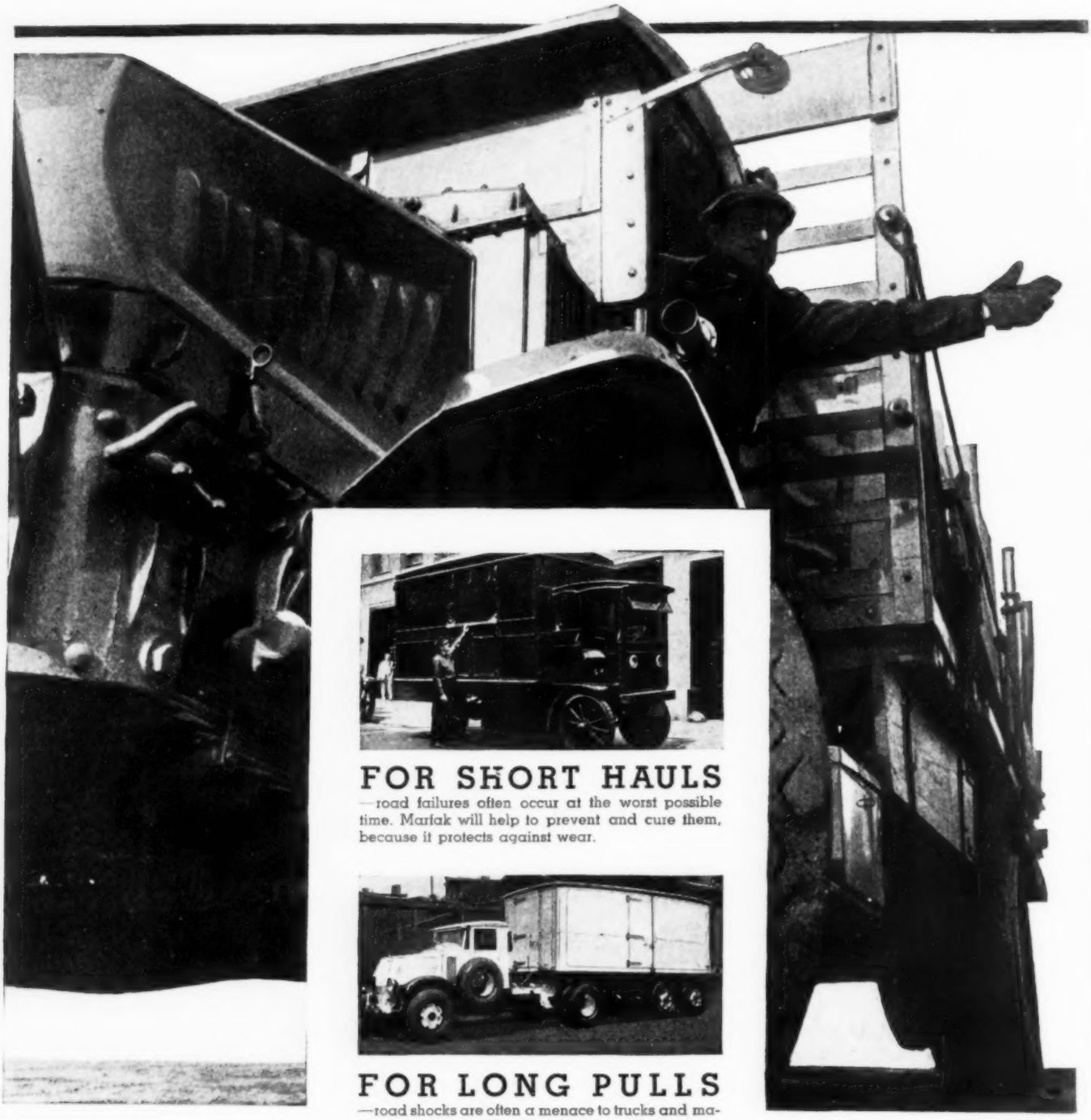
LOS ANGELES—*In a deciding race held here recently, Rex Mays won the 1934 Pacific Coast racing championship. Mays is a strong booster for Champions, having used them in every race this year. His track victories prove Champion's superiority.*



LOS ANGELES—*It takes Champion performance to win! Al Gordon depended on Champion Spark Plugs when he won a thrilling victory at the Ascot Speedway recently. All cars to finish used Champions. Still further evidence of their better performance.*

KEEP ENGINES YOUNG • TEST AND CHANGE SPARK PLUGS AT REGULAR INTERVALS

One on the road is worth



FOR SHORT HAULS

—road failures often occur at the worst possible time. Marfak will help to prevent and cure them, because it protects against wear.

FOR LONG PULLS

—road shocks are often a menace to trucks and materials in transit. Marfak will cushion the heaviest shocks with a protecting film that won't break down.

TEXACO *tested*

TEXACO

REFINERY TESTED FOR UNIFORMITY . .

three in the shop!

Let MARFAK ride your trucks!

Maintenance costs—one of your largest operating expenses—can be considerably reduced if you use Marfak.

The largest bus systems and fleet operators in the country have standardized on Marfak because it costs less to use. *It often lasts three times as long* as ordinary grease lubricants.

Marfak is a superior grease-type lubricant—developed by Texaco in cooperation with the automotive industry. Its exceptionally tough film won't break down under the heaviest loads. Its unusually high "oiliness" will assure complete lubrication. It will prolong the life of your trucks. It will reduce bearing wear in steering systems, shackles, wheel bearings, universals. And this means lower maintenance costs on every vehicle.

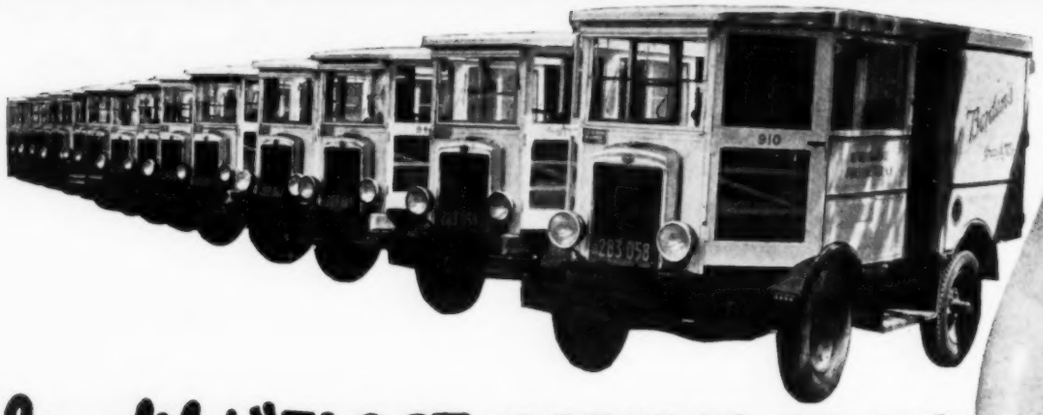
It doesn't cost anything to find out how Marfak can help you to cut your maintenance costs. Just write and ask for a representative to call. He will prove to you how and why Marfak should "ride" your trucks.

THE TEXAS COMPANY
135 East 42nd Street • New York City
Nation-wide distribution facilities assure prompt delivery

LUBRICANTS

. . SERVICE TESTED FOR ECONOMY

Biggest Fleet News of 1935: Grafild "FLEET SERVICE PLAN" cuts operating costs



Grafild "FLEET SERVICE PLAN" meets Borden's rigid standards

SAFEGUARDING their new "Golden Crest" milk, Borden's applies the same exacting safety standards to all equipment. Their use of Grafild Brake Linings as standard equipment for the last two years proves the quality of our "Prescribed Friction" Sets and the efficiency of our exclusive "FLEET SERVICE PLAN."

Grafild's novel "FLEET SERVICE PLAN" is also cutting operating costs of many other fleets, large and small. The only workable and comprehensive fleet program we know of that applies the "personalized" service of the factory Engineering Department to every vehicle of any fleet anywhere in the United States.

The "FLEET PLAN" is simple, yet scientific and foolproof. Just file a list of your vehicles with our nearest jobber on our special forms. Our factory Engineering Department then prescribes the exact friction lining combination for each shoe of each brake, to insure maximum performance and longer life.

Each such "prescription" of correct linings is then sealed in a carton as a "Prescribed Friction" Set with full instructions for installation and trouble prevention. No more compromising, no more guesswork cutting from rolls, no wrong linings. Repairs made promptly without usual long "lay-ups." Moreover, the dense balanced-friction Grafild De Luxe linings in your Sets provide maximum durability, making fewer repairs and adjustments necessary.

Jobbers like the Grafild "FLEET SERVICE PLAN" because they need carry only a minimum stock of Sets to service any vehicle in your fleet promptly. Only Grafild, with its "Prescribed Friction" Sets and its premier Research and Engineering Department, could devise and execute such a tailor-made fleet program. It will pay every fleet operator anywhere to get details at once.

●

WORLD BESTOS CORP., Paterson, N. J.

Grafild "FLEET SERVICE PLAN" with "Prescribed-Friction" Sets

WHAT 1000 OWNERS SAY

about new low priced Whites

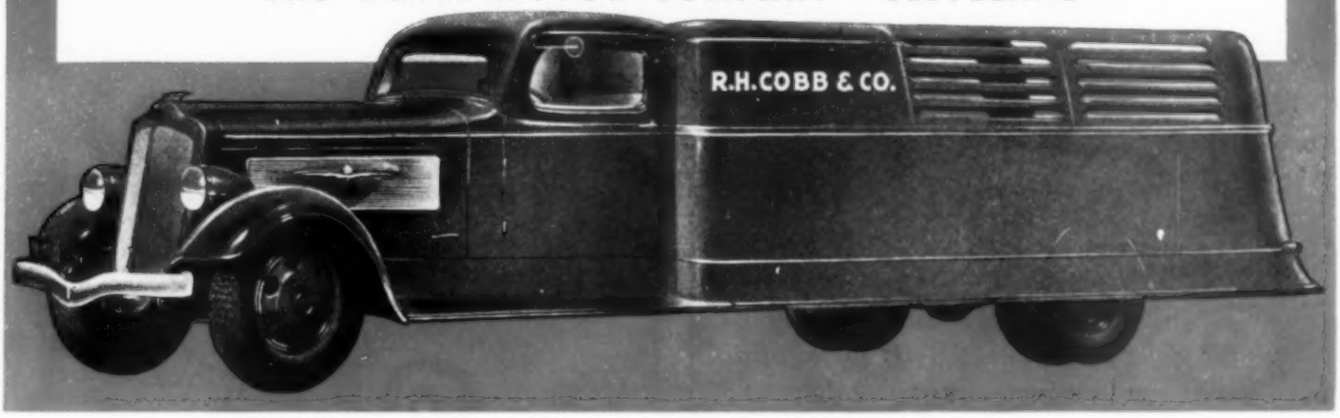
69% have had no expenditures for repairs!

31% have had only 1/10 of a cent per mile for all repair costs!

Of all trucks reporting, those with average mileages of 45,000 miles or more averaged 9½ miles per gallon and a repair cost of slightly more than $.0005 per mile!

Here is a record of *owner satisfaction* —a record of *performance* and *economy* of *maintenance and operation* that has never been equalled in the light duty field. Undeniable proof that White has given operators the only low priced *quality* truck— precision-built for lowest maintenance costs, economy of operation, greater dependability and longer life.

THE WHITE MOTOR COMPANY • CLEVELAND



Now still further improved—NEW 1935 MODEL—with all these QUALITY features:

1. Precision-built, 75 horsepower engine.
2. Stellite exhaust valve seats, screwed-in and dowelled type.
3. Hydraulic brakes.
4. "K" type of chassis design, providing more payload space on shorter wheelbase. Better weight distribution on tires.
5. Full pressure lubrication through rifle-drilled passages to all main bearings, connecting rod bearings, cam shaft and wrist pins.
6. Electro-plated matched pistons.
7. Full-floating wrist pin design.
8. Steel-backed, babitt-lined bearings.
9. Thermostat in motor.
10. Unusually stiff crankshaft and rigidity in crankcase.
11. Generator accessibility and flexibility.
12. Vibration dampener.
13. Governor standard equipment.
14. Oversize bearings in transmission and case hardened alloy steel gears.
15. Oversize steering gear.
16. Reaction type booster brake, weather-proof unit.
17. Insulated cab roof.
18. Perfect insulation of cab against engine heat.
19. 100% cab ventilation.
20. Heat treated frame.
21. Gussetting and full-depth cross membering of frame.
22. Oversize radiator.
23. Double fan belt.
24. Heavy truck type fenders.
25. Disc wheels at no extra cost.
26. Heavy front end construction, axles, spindles etc.
27. Double wrapped spring eyes for safety.
28. 3-inch tubular propellor shaft with needle bearing joints.
29. Spring loaded clutch plate.
30. Extra heavy axle housing, full-floating with load carrying tubes pressed-in.
31. Rear axle spring pads integral with axle housing.
32. 25½-inch width of frame at front provides unusually short turning radius.
33. 60-inch cab.
34. Attractive radiator grille.
35. Bullet-type headlights.
36. New horizontal louvres.

THE NEW White AT $1185

8,000 TO 13,000 LBS. GROSS CHASSIS AT FACTORY

THE IMPORTANT QUESTION

in considering turn signaling equipment is not;

Shall I put it on —
Or what is the price,
BUT — how does it stand up.

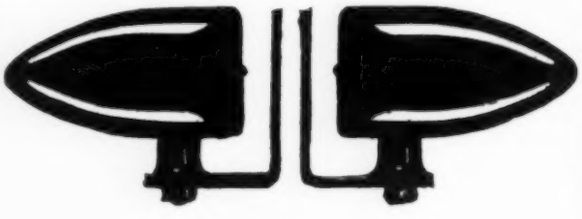
The law and courtesy of the road requires that you give an understandable signal before every turn.

TURNSIGNAL — was designed and is built to last the life of the truck.

TURNSIGNAL does successfully withstand more than 25 times as much vibration shock as is required to pass vibration test of any state.

TURNSIGNAL is without a maintenance problem.

TURNSIGNAL cost, in the end, is proving less than 1/10 as much as some of the low price signaling devices.



TURNSIGNAL

is

Officially approved by all States requiring turn signalling equipment

Watch for this trademark

TURNSIGNAL
CORPORATION

400 E. RITTENHOUSE ST. (Germantown) PHILA., PA.

The

FLEET OWNER

Published Monthly in the interests of Automotive Fleet Owners who maintain their own Repair and Service Shops and devoted to the better Operation and Maintenance of Truck, Trailer, Bus, Passenger Car, Taxicab and all Automotive Fleets.

VOL. 14 New York, March, 1935 No. 3

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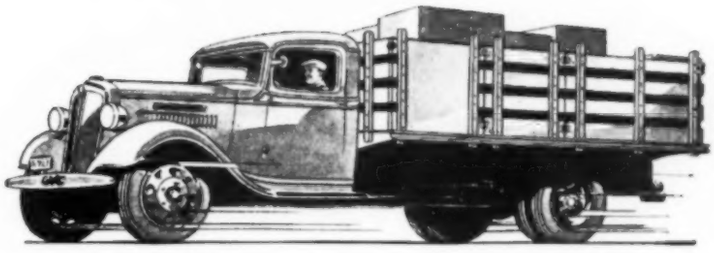
THE TRUCK GMC OF VALUE

You'd expect it to be SAFER



...IT IS!...

LOCKHEED HYDRAULIC BRAKES

plus centrifuse brake drums and exceptionally large lining area assure full protection

IN JUDGING the value of 1½-2 ton trucks, seasoned operators are giving particular heed to safety factors. That's why so many of them are swinging to the quality GMC, the many-feature truck that returns to owners far more in work done and profits earned.

In addition to more than two score of other important dollar-saving quality features, the 1½-2 ton GMC has a brake factor combination unmatched by any competitive truck. Its self-equalized Lockheed hydraulic brakes are of the latest type—extremely powerful, positive and rugged. Brake drums are of the economical centrifuse type—non-scoring, non-warping. Brake linings are of exceptionally high quality and unusually large area—long-lived and economical.

Comparison—part by part—will quickly prove to any truck buyer why the many-feature GMC is worth every penny of its price . . . will prove that this truck excels each of its chief competitors on many counts, that it has, in fact, a combination of 47 important money-saving features that you will find in no other truck of like capacity.

See, test and compare for yourself this quality GMC that out-performs and out-earns. Or if your needs call for trucks or trailers of greater capacity, see the balance of the GMC truck and trailer line. Capacities range from 1½ to 22 tons.

Revolutionary Dual-Performance Axle in 2-3 ton GMC

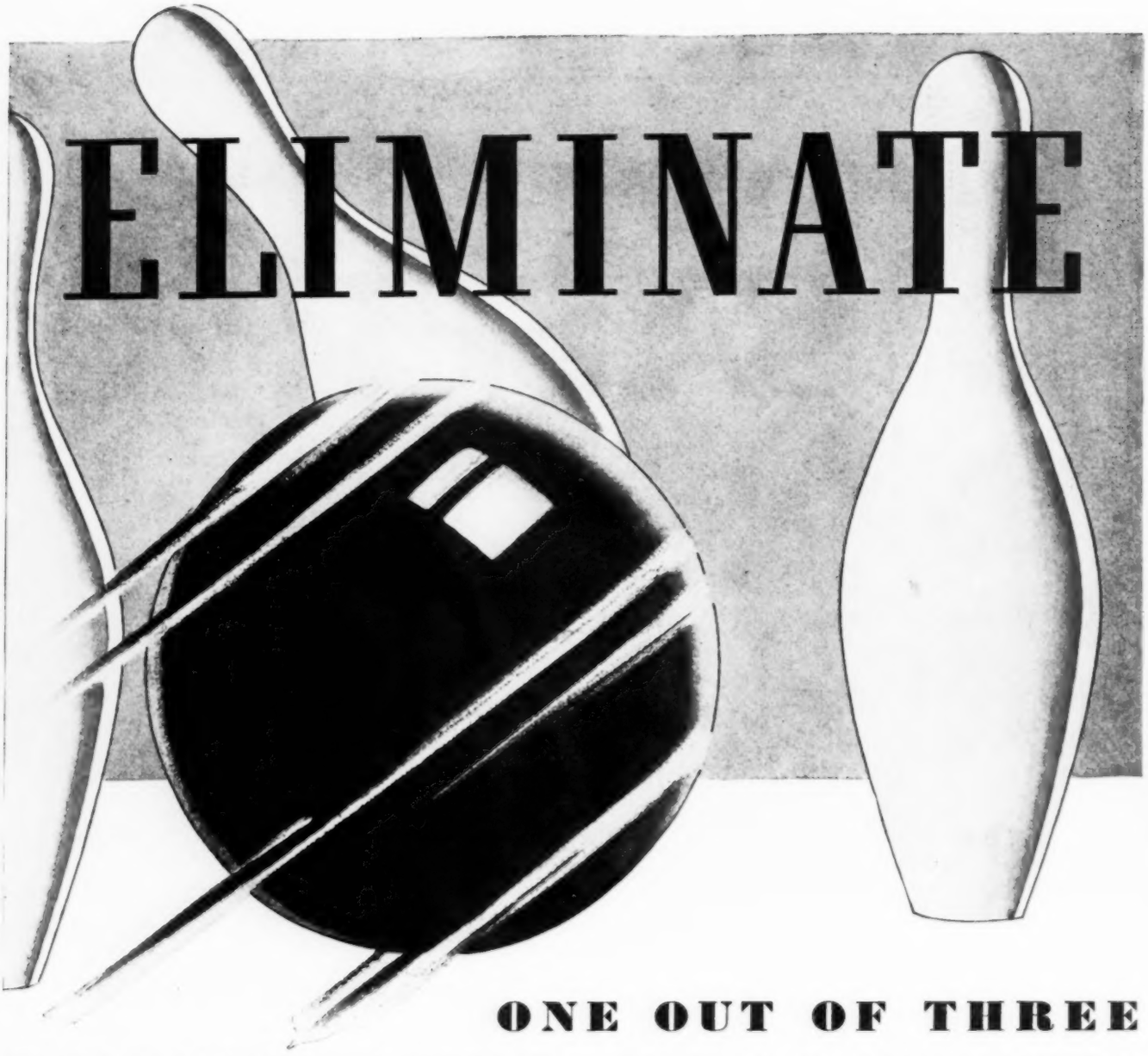
This new advanced truck feature provides a high-high gear (5.14 to 1) for fast movement on the level at economical engine speed and a low-high gear (7.15 to 1) which assures improved performance with heavy loads on hills or where the going is hard.

A TYPICAL VALUE FACT

Included in the 47 important GMC quality features is full pressure lubrication. This means that oil is forced under pressure to all main, connecting rod and camshaft bearings, as well as to the piston pins through rifle-drilled connecting rods. *Such a complete system of lubrication is naturally more costly to install but it is the truck owner's assurance of protection against premature wear and costly upkeep expense.*

GENERAL MOTORS TRUCKS & TRAILERS
1½-22 TONS

GENERAL MOTORS TRUCK CO. **Time Payments Available Through Our Own Y.M.A.C.** **PONTIAC, MICHIGAN**



ONE OUT OF THREE IGNITION CABLE REPLACEMENTS

That's what you'll do if you start using Packard FOUR-FORTY ignition cable. Here is a cable *ideally* suited for the rigorous duties of fleet service. Its secret-formula inorganic-base compound construction gives it an unequalled degree of resistance—not only to heat, but to high voltage rupture, oil and age as well! Packard FOUR-FORTY simply can't be compared with *any* ordinary ignition cable—it outwears them all. Tests have proved this again and again. Why not make your *own* test—and prove to yourself that you can cut cable costs *one-third?* See your jobber at once—install FOUR-FORTY on one unit and watch the results. You'll find that you get *better performance* at *less cost*—and you'll want to standardize on Packard FOUR-FORTY on all of your units from then on! Packard Electric Corporation, Warren, Ohio.

Packard
REG. U. S. PAT. OFF.
TRADE MARK

THE STANDARD WIRING EQUIPMENT OF THE AUTOMOTIVE INDUSTRY

WE CUT REAR-END JOBS BY 1/3 THIS MONTH..THANKS TO SOCONY-VACUUM

Read how Fleet Operators Save Money by using our Free Consulting Service on Bus Lubrication

KEEPING A FLEET of buses rolling in continuous service is an exacting job which, among other things, calls for a specialized and expert knowledge of rear-end lubrication.

If you will tell us the essential facts about the kind of service you maintain, perhaps our engineers can help you . . . as they have already helped hundreds of other fleet operators.

For after a thorough-going, two-year study of lubrication problems, we have collected much valuable data—always available to you for the asking.

And as one result, Socony-Vacuum has developed a new, finer Mobilube which many bus operators have told us they regard as the finest rear-end lubricant they have ever used.

WE'LL HAVE our representative bring this consulting service to your shop, if you'll just drop a line to any of our member companies, listed below.

TWO YEARS OF RESEARCH ON BUS "REAR ENDS"

HERE ARE PICTURED sections of two identical gear wheels that were run for 140 hours under identical conditions—except that different lubricants were used. Wear, pitting and corrosion varied in some cases—from 500 to 900 percent. Just one example of many such Socony-Vacuum studies.

SOCONY-VACUUM OIL CO., INC.

STANDARD OIL COMPANY OF NEW YORK • WADHAMS OIL COMPANY • VACUUM OIL COMPANY • MAGNOLIA PETROLEUM COMPANY • GENERAL PETROLEUM CORPORATION OF CALIFORNIA • WHITE EAGLE OIL CORPORATION • WHITE STAR REFINING COMPANY • LUBRITE REFINING CORP.

MOBILUBE

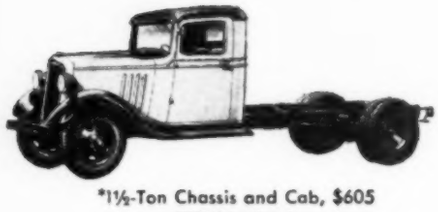
MOBILGAS . . MOBILOIL . . MOBILGREASE

SOCONY-VACUUM

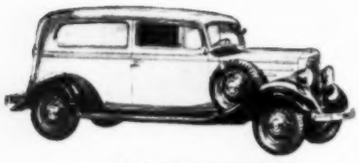
CHEVROLET

Truck owners know economy THAT'S WHY THEY BUY CHEVROLET TRUCKS

*1½-Ton Stake, $720
(157" Wheelbase)



*1½-Ton Chassis and Cab, $605
(157" Wheelbase)



Sedan Delivery, $515
(107" Wheelbase)

Half-Ton Panel, $560
(112" Wheelbase)

Men who study haulage costs know that Chevrolet trucks are as outstanding in economy and durability as they are in price. Chevrolet trucks handle tough hauling jobs day after day at small operating cost, because they are built to Chevrolet's own high standards of quality in every part. The powerful six-cylinder valve-in-head engines are truck motors, especially designed to give sustained pulling power and to keep on working under the hard punishment of road and load. Features that assure stamina and long life are evident in every detail of the precision-engineered chassis. Chevrolet trucks are the *world's lowest-priced* trucks—because Chevrolet is the *world's largest builder* of trucks.

CHEVROLET MOTOR COMPANY, DETROIT, MICHIGAN

Compare Chevrolet's low delivered prices and easy G.M.A.C. terms. A General Motors Value

*At left and above are list prices of commercial cars at Flint, Michigan. *Dual wheels and tires $20 extra. Special equipment extra. Prices subject to change without notice.*

CHEVROLET TRUCKS

World's Lowest Prices

VOL. 14
NO. 3

FLEET OWNER

MARCH
1935

DEVOTED TO THE BETTER OPERATION AND MAINTENANCE OF TRUCK, TRAILER, BUS, TAXICAB, PASSENGER CAR, AND ALL AUTOMOTIVE FLEETS.

Stripping *the* Thread » »

(The Editor's Column)

STATIC AND DYNAMIC

● It used to be a great talking point of the automobile salesman when he could say "Our crankshaft is statically and dynamically balanced." Now, practically every shaft is, and this usually goes without saying . . . On the other hand, did you ever apply the principle to loads? A "dynamic" load is one that is started and stopped frequently, like the brewery truck delivering a few kegs of beer each stop, and making many stops per day. A "static" load is one that is driven, let's say from New York to Albany, with no deliveries in between . . . Clint Brettell (pay cash and save 6%) reminds us that sometimes a one-ton truck, *on route work*, will move half-ton loads *much* cheaper than a half-tonner can do it . . . There's something to bear in mind when signing up for new equipment. Although many a 1½-tonner is "getting away" with five or six tons, we'll bet you never thought that it might be just the thing for those door-to-door half-ton loads . . . Don't be inclined to laugh this off, for Clint is a good statistician and undoubtedly can prove what he says.

●

GOOD ADVERTISING?

● The following item, from the *Boston News Bureau*, helps to bear out something that we have always advocated—the fact that your rolling stock is one of your best advertisements . . . We quote from it: *"On Saturday afternoon last, the Metropolitan Coal Company of Boston, delivered several 10-ton loads of coal to the National Shawmut Bank. This event was nothing unusual in itself, but the fleet of coal trucks employed, attracted considerable attention, with their automatic hoists, aluminum bodies and heated cabs of the latest design. These trucks, recently purchased, represent the last word in efficiency and economy"* . . . Anything that begets admiration on the part of a public crowd, is surely good advertising—the advertising man on stilts—a message in "smoke" from an airplane—or an attractive piece of delivery equipment . . . This is probably old stuff to you, especially if you have followed up our articles on commercial vehicle refinishing . . . But we're the type of individual who always passes the pepper shaker, too, when someone asks for the salt.

●

SYNTHETICS FOR TRUCKS?

● An operator "called" us recently, since we've been saying so much about the use of synthetic enamels for truck painting. He wanted to know, if these were so good, why the truck manufacturers were not using them as standard equipment on new vehicles. . . . We

replied that, to our knowledge, many of them are, except on a few of the smaller commercials that are finished in lacquer. . . . All of which gives us a perfectly good excuse for printing the accompanying picture. . . . The gentleman who seems to be so lackadaisically resting on the truck's fender is none other than Tom Loberg, superintendent of the finishing department for FWD. Tom supervised the finishing of these trucks "away back when" Pancho Villa was galavanting around Mexico and causing great concern to Uncle Sam. And he is still on the job. . . . As to what Tom thinks of synthetics, we'll let *him* tell it: *"Synthetics' quick drying qualities speed up production. They spread beautifully under the brush and spray with marvelous consistency. The gloss is smooth and lasting and they are an all-around satisfactory finish."* . . . Tom even mentioned the name of the synthetic he likes best, but we, of course, wouldn't let it slip into this column. That would be *telling*.

●

ASSISTANCE NEEDED HERE

● On page 53 of this issue there is a questionnaire on Insurance. We know how you hate questionnaires—most everybody does, and particularly when they are on *intimate* subjects . . . Please understand that we are not trying to pry into your private affairs. We really are attempting to get some worth-while information that we can pass back to you in the form of a resumé or an interesting article on the subject . . . We could easily get an insurance man to write such an article, but we don't do things that way. We want to give you some *real*, helpful data that is based on actual fleet experience, and are therefore calling on you to help us assemble the necessary information . . . Since it is physically impossible for us to call on each and every operator, we are utilizing the "Question-of-the Month Club"—and we hope that it will work out . . . It will, if a reasonable number of operators will be kind enough to fill in the blank questionnaire, tear it out of the book, and mail it back to the Editor . . . If Insurance does not come within the scope of your duties, won't you *please* ask the proper executive to do it? In return for his efforts, we will send

(*Please turn to next page*)

H. Clay Fischer
Editor

YOU SEE IT "FIRST" IN FLEET OWNER

The Editor's Column » »

(Continued from Page 13)

him a typewritten tabulation of all of the answers—and we'll print a general article on the subject in an early issue . . . We don't ask very much of you, and we don't often make this kind of an appeal. Rest assured that we will keep the information CONFIDENTIAL, and only the vaguest generalities will be given out . . . Let's see how many replies this humble appeal will bring. If you've never done anything for us before, now's your chance. Thanks, very much.

•

IN THE WRONG DEPARTMENT?

● Most everyone has been confronted with the problem of rust-spots that have a nasty habit of poking their faces out through chromium-plated brightwork—headlamps, radiator shells, bumpers, etc. . . . What to do about it is a question that has kept many fleet supers lying awake nights. . . . Here is something that is claimed to be a "solution" to this problem: A manufacturer has just brought out a kit consisting of three liquids. Number 1 dissolves away the rust; Number 2 neutralizes the surface and Number 3 is a protective coating to prevent further rusting. . . . And that's about all we know about it. However, if you'd like literature and perhaps a small sample for test purposes, just let us know and we'll *try* to get it for you without obligation. . . . Of course we have a regular department for illustrating and describing new products. But when we strike something of *unusual* interest, it's difficult for us to refrain from mentioning it here, where such information certainly does *not* belong. . . . But you'll forgive us this time, won't you, and if your interest has been aroused, just take us up on our offer to get samples for you.

•

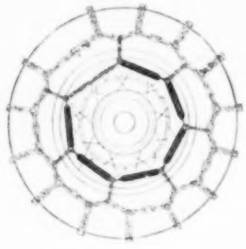
CAN YOU USE THIS MAN?

● The author of the series of articles entitled "*Analyzing a Typical Fleet Operation*," which appeared in our last four issues, is seeking a permanent connection with a fleet. He offers to take full charge of a medium-sized fleet, or to act as junior executive in the management of a large one . . . To those of you who have taken an interest in his articles, he will need no introduction. He has several university degrees in mechanical engineering and business administration and a practical knowledge of fleet management . . . We are pleased to recommend him. Although we do not know how good he is with a monkey-wrench, we *do* know that he has a thorough and intimate conception of fleet cost-accounting and operating procedure, and we feel sure that some day he will turn out to be a foremost transportation engineer. . . . If you'd like to hear more about his qualifications, just drop a line to Mr. E. J. Gribbons, c/o Editor, FLEET OWNER, 90 West St., New York City.

•

EMERGENCY UNITS OR CHAINS?

● We've had a lot of snow and ice this winter and the tire chain business must have been very good. Even the 5 & 10-cent stores were selling them, in the form of "emergency units" which one could fasten to his tires with a leather or fabric strap . . . Many fleet operators used them, and probably still are, depending on whether or not Mr. Groundhog's prognostication was fulfilled. . . . While the leading tire chain manufacturers made and sold these "emergency units," they went on record to tell you that they really were intended to be used only in emergencies—not like the emergency brake . . . So let us echo their sentiments on the subject: "*Motor vehicle operators should not depend on emergency units for everyday use. When these units are fastened to a tire, they do not 'creep' but remain fixed in the same spot of the tire. After running for some distance on them, abnormal tire wear will be observed on account of this fact. For regular operation, the standard type of full-circle tire chain should be used—and should be fastened loosely, so that the chain can 'creep,' thus eliminating any undue tire wear*" . . . So, if you have been a victim of circumstance, and have used emergency units throughout the past winter, remember that it will be cheaper in the end to use the regular full-circle tire chains . . . Paste this in your scrapbook under "Winter Operation" and be prepared to do the *right* thing *next* winter.



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FOR "NOO-YAWKERS" ONLY

● There's a very live outfit functioning in Greater New York which all operators in that territory should know about . . . It's the Motor Truck Maintenance Club of New York. Membership is limited to fleet maintenance executives in direct charge of large fleets, and their roster will not accommodate more than fifty . . . A more detailed announcement appeared on page 42 of our January issue. If you missed it, let us repeat that the meetings are confined to *intimate* discussions of current problems. You'll get a better idea of what they mean by "intimate" when we tell you that even Yours Truly could not sneak by their Sergeant-at-Arms and has to stand outside until the meeting is over, if he wants to shake hands with some of his friends . . . But that does not make us sore, and if you'd like to know more about how you can join up with a real *live* bunch, just drop us a line. Executives of most large fleets in the Metropolitan area are members, and they'll welcome you into the fold—that is, if you are eligible, as outlined above . . . If you'd rather write them directly, get into touch with Joe Husson, care of Borden's at 99 Hudson St., New York City. Or phone him, WAlker 5-0241.

•

NOW IT'S COLONEL, SUH!

● From now on we will have to call him "Colonel" Newton. Our friend and contributor, L. V., has been commissioned a colonel on the staff of Ruby Lafoon, Governor of Kentucky . . . Besides being automotive engineer for Byllesby Management Corporation of Chicago, Colonel Newton is vice-president of the S.A.E. Transportation and Maintenance Section. And during his spare time, he manages to send us some interesting data for publication—not once, but often . . . Our best to you, Colonel Newton!

•

STOP US IF YOU'VE HEARD IT

● Since you're accustomed to looking for a humorous anecdote at the tail-end of this column, we'll try not to disappoint you. So here goes one for this month . . . One of our well-known and best-liked fleet maintenance men is alleged to be the victim of a vicious story . . . It seems that it happened in his early days, when he was shop foreman for a truck fleet. When one of his mechanics pulled the cylinder-head and called his attention to a scored cylinder, caused, no doubt, by a loose wrist-pin, said executive, it is related, was overheard to remark: "*There you are! That's something I've always advocated—a vertical oil-groove in the cylinder wall!*" . . . The story has been told and retold with many variations. Perhaps you've heard it before. And maybe it was about two other fellows. But it's our contribution to the laugh-box for this month and we hope you like it.

NEW MAN-MADE INSULATOR

Revealed by the Microscope:

Unretouched micro-photographs (enlargement 45 diameters) of insulators used in the Pyro-Action Spark Plug (designed by Robert Bosch A.-G.) and three other leading makes of spark plug are reproduced here. Note how much finer, smoother, more compact is the material in the Pyro-Action Insulator. Read below how this increases spark plug efficiency.

Pyro-Action — Plug X — Plug Y — Plug Z

in the new

Pyro-Action Plugs

DESIGN AND LICENSE ROBERT BOSCH A.-G.

TO help you lower your cost-per-mile, the oldest spark plug manufacturer in the world has developed an entirely new plug.

It is the new Pyro-Action Spark Plug, designed by Robert Bosch A.-G. To achieve the results this plug makes possible, it was first necessary actually to create new metals and a new insulating material . . . to meet the challenge of modern heavy duty engines.

In this advertisement we want to tell you about this new insulating material. In the first place it is synthetic — man made, achieving unique uniformity in composition and texture. Every insulator is identical with every other!

In the second place, as the photo-microscope testifies, this material is much smoother and finer than the insulator used in any other standard plug. This is important, because the close grain repels the absorption of fuel and oil, a common cause of plug failures.

This new insulating material makes possible a revolutionary reduction in the number of plug types. *Only one third of the former number of types are needed to cover the entire gamut from cool to hot.*

Think what this wider heat range means to you: simplicity in selecting the right plug for the right application . . . the ability to withstand variations in loads, in speeds, in operating conditions.

***Competitive in first cost,* Pyro-Action Plugs (designed by Robert Bosch A.-G.) are giving so many extra thousands of efficient service miles that they are lowering the spark plug cost-per-mile for bus and truck operators everywhere. Challenge our nearest representative to demonstrate these results to you on your own fleet.**

Made by

UNITED AMERICAN BOSCH CORP.

Springfield, Mass. - - New York, Chicago, Detroit

The American-Bosch organization has always taken pride in creating, building and selling products superior to those commonly in use. Proven leaders in their fields, these products are built up to a high standard of quality and not down to a price.

Pyro-Action

the HEALTHY *Spark Plugs*

DESIGN AND LICENSE ROBERT BOSCH A.-G.

An Interview With

J. R. Brown, Mgr.,

Dairymen's Cooperative Creamery, Caldwell, Idaho

27-Truck Fleet Gets *the*

A FLEET of twenty-seven trucks is operated by the Dairymen's Cooperative Creamery, with headquarters at Caldwell, Idaho. This organization, one of the most successful of its kind in the country, is located in the approximate center of a very interesting irrigated region bordering the Boise River. A circle of 25-mile radius, centering in Caldwell, practically includes the entire area, which is one that lends itself particularly well to the frequent, low-cost transport of cream by motor truck to the single, centrally located Caldwell plant, without the necessity for cream stations at any wayside points.

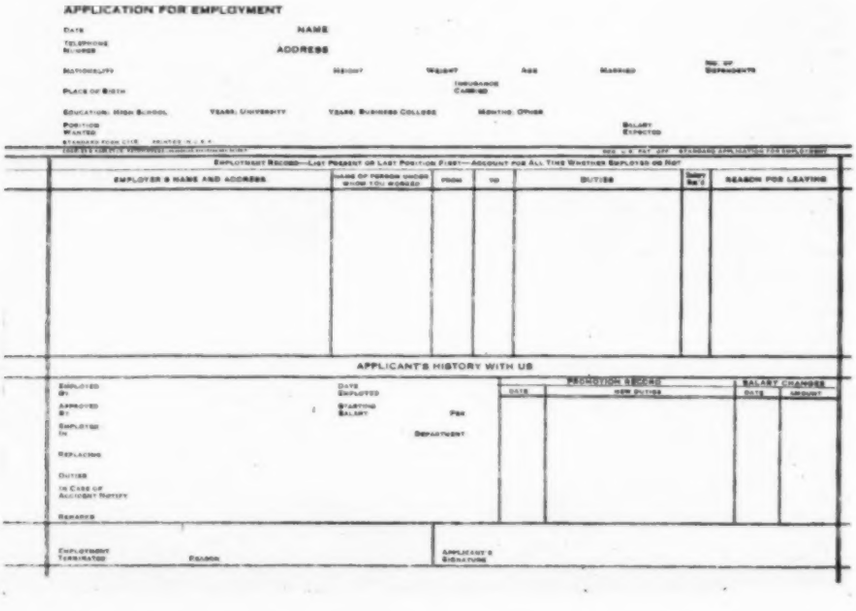
All of the twenty-seven trucks, with the exception of one, are 1½-ton Internationals, the exception being a recently purchased half-ton job, which is used for general light hauling. One of the trucks is a tractor job, equipped with a semi-trailer and there are, in addition, two four-wheel trailers.

Notable economies have been obtained by the Dairymen's Cooperative Creamery of Boise Valley in the operation of its automotive units. Said J. R. Brown, manager of the Cooperative, "We attribute much of our success to the use of modern, efficient equipment, among which is our fleet of modern motor trucks. These trucks have proven their dependability over a period of years and evidence of their economical operation is a matter of record of which we are justly proud."

Table I on the next page illustrates some interesting operation-cost figures for the fiscal year, May 31st, 1933 to May 31st, 1934. The figures given are the total operating costs for 23 of their International trucks used during the period mentioned.

"Better roads, improved motor trucks and increased efficiency in fleet management and collection have brought hauling costs down to one-half of what they were when the cooperative began operations in 1925."

"The Dairymen's Cooperative Creamery also entered the whole milk field in January, 1934," Mr. Brown went on to state, "and we are now handling a considerable volume of this commodity in addition to cream. Here again by economical and efficient operation of our motor trucks and also the co-operation of dairymen in placing cans so that collections can be


APPLICATION FOR EMPLOYMENT

DATE
NAME
TELEPHONE NUMBER
ADDRESS
NATIONALITY
HEIGHT
WEIGHT
AGE
MARRIED
NO. OF DEPENDENTS
PLACE OF BIRTH
INSURANCE CARRIED
EDUCATION: HIGH SCHOOL
YEARS: UNIVERSITY
YEARS: BUSINESS COLLEGE
MONTHS: OTHER
POSITION WANTED
SALARY EXPECTED

EMPLOYMENT RECORD—LIST PRESENT OR LAST POSITION FIRST—ACCOUNT FOR ALL TIME WHETHER EMPLOYED OR NOT

EMPLOYER'S NAME AND ADDRESS	NAME OF PERSON UNDER WHOM YOU WORKED	FROM	TO	DUTIES	SALARY PER ?	REASON FOR LEAVING

APPLICANT'S HISTORY WITH US

EMPLOYED BY
APPROVED BY
EMPLOYED IN
REPLACING
DUTIES
IN CASE OF ACCIDENT NOTIFY
REMARKS
DATE EMPLOYED
STARTING SALARY
PER
DEPARTMENT

PROMOTION RECORD		SALARY CHANGES	
DATE	NEW DUTIES	DATE	AMOUNT

EMPLOYMENT TERMINATED
REASON
APPLICANT'S SIGNATURE

THINGS run on the "cooperative" plan generally fall down, particularly when their activities include buying. Here's a "Cooperative," however, that successfully operates a fleet of trucks, just the same as You or I. By standardizing on one make of truck, some interesting economies have been effected.

"Cream" of the Business

speeded with a consequent decrease in cost thereof, we are hauling whole milk for 8 cents per hundred pounds; this is a reduction of from 2 to 6 cents in hauling charges prevailing in our territory before we entered this field."

All motor trucks in the fleet are painted yellow, the color of the Co-operative's main product, butter. The trade marks on the cab doors are blue. The trucks are fitted with low-mounted platform bodies to facilitate the loading of heavy cans. Stakes are on the sides. The front part of each milk and cream collecting truck is double-decked and provided with side extensions, as shown in accompanying illustrations, to increase its can-carrying capacity.

Traveling as they do every day, Sundays as well as week days, in every nook and corner of the valley, these trucks are continually reminding the farmers of the fact that their Cooperative is very much on the job boosting their earnings. And then there is that slogan, "Every Member a Fieldman" prominently displayed on each truck, which reminds every cooperating farmer that he must boost his organization and pull with his own people. As attention-getting advertising mediums these butter-colored motor trucks are hard to beat.

Each truck travels an average of from 75 to 100 miles a day. Cream is collected every other day. Although the plant is equipped with three large separators, each of which has a capacity of 10,000 pounds an hour, farmers are urged to do their own separating so they can feed the skim-milk to their hogs and chickens. Whole milk is collected every day. A number of trucks have gone more than 200-000 miles and several of the oldest over 250,000 miles. There is an extra driver for every six trucks; this makes it possible for each man to have one day off each week. Each driver starts work at 6 A.M. and finishes around noon.

The Dairymen's Cooperative creamery is especially careful in the selection and training of its drivers. Like the true cooperative that it is, it insists that the drivers must come from farms where co-operative milk is produced. Most of them, in fact, come from farms in the valley operated by members of the "Coop," and so at the very

(*Please turn to page* 60)

Table I—Operating Costs for 23-Vehicle Fleet

(One year, May 31, 1933 to 1934.)

Depreciation, insurance and licenses	$ 4,347.23
Gas and Oil	11,095.05
Maintenance, including repair parts	8,622.44
Total	$24,064.72

Miles Traveled 393,500
Cost per Mile $0.0611
Pounds of cream and milk hauled 19,117,700, which contained 3,543,580 pounds butter-fat.
Cost per pound butter-fat $0.0067

Table II—Average Daily Prices of Butter-Fat

	Average Daily Cash Price	Cooperative Creamery Return
1930	35.44c	40.33c
1931	24.46c	28.50c
1932	18.09c	22.23c
1933	16.85c	21.08c
1934	21.56c	26.83c

SPEEDY• ECONOMICAL• DURABLE

Hammond Standish & Co.
Hammond Standish & Co.
Hammond Standish & Co.
Hammond Standish & Co.
A BEER OF THE FINEST QUALITY
Mundus
BREWED OF THE CHOICEST MATERIALS

ACME

The Pioneer of Motor Car Finishes

Acme has been the leader in the development and manufacture of fine motor car finishes. Many of the first cars built were Acme finished. And now, Acme is the first to perfect synthetic enamel. Back of every gallon of Acme Fleet-X are fifty years of exhaustive research and experience.

A few of the many fleet owners now saving on maintenance costs with Acme Fleet-X

ACME Fleet-X

ACME WHITE LEAD & COLOR WORKS • PROXLIN DIVISION

FLEET REFINISHING WITH . . .

ACME Fleet-X

QUICK, EASY APPLICATION • BETTER HIDING AND COVERING POWER • FAST, SMOOTH DRYING • LOWER MAINTENANCE COSTS

These important features of Acme Fleet-X make it possible for every fleet owner to obtain better truck and commercial car refinishing. It will take less time—using less labor—and less material. The result is a beautiful job at a lower cost that will give exceptional service—and reduce your maintenance bills. For Acme Fleet-X also offers greater durability! More beautiful lustre! Resistance to extreme weather conditions!

The astonishing feature of Acme Fleet-X is that, because of partial oxidation in the manufacturing process, it dries faster and better. This gives a finish with all of the durable, elastic properties that will take hard, long wear. Yet, it dries dust-free in seven to ten minutes! Ready for a second coat in less than an hour—and dries hard overnight to a beautiful film, without rubbing or polishing! A unit finished one day can be run out of the shop the next day.

Two Coats Cover Solid

Acme Fleet-X sprays easily and levels smoothly. It takes a maximum reduction—and has such excellent hiding properties that two coats cover solid. Does not run or sag—does not lift old paint, varnish, baked enamel or lacquer. Comes in complete range of colors.

Try Acme Fleet-X. You'll find that it is economical to use—that it will save you time—and that its beautiful appearance on the road in every weather will be a real goodwill builder. Our finishing engineers will gladly give you practical help and information that may be helpful to your fleet—at no cost or obligation. Write Acme White Lead and Color Works, Dept. F3, Detroit, Michigan.

Fast drying—Dries dust-free in seven to ten minutes

Natural, lustrous finish—Needs no rubbing or polishing

Weatherproof finish—Extreme weather conditions can't dim its beautiful lustre

LACQUER ENAMEL
PROXLIN
ENAMEL LACQUER

DETROIT, MICHIGAN

"We Abolished All Printed Forms"—(But Two)

An Interview with

Thomas L. Price,

Superintendent of Transportation,
The Baltimore Transfer Company,
The Hoffberger Ice Company,
Baltimore, Md.

Here's How Our Fleet of 380 Heavy-Duty Trucks is Maintained Efficiently Without a Flock of Time-Consuming Printed Forms

KEEPING a fleet of 380 trucks moving (including 100 trailers) to all points east, west, north and south, is the job of Thos. L. Price, Superintendent of Transportation of the twin concerns, The Baltimore Transfer Company and The Hoffberger Ice Company in Baltimore, Md.

With such a vast fleet, Mr. Price found that detailed record-keeping of shop experience involved too much money and wasn't worth it, so he eliminated it and today we find only two printed forms in use in the office.

"Even after you had the data assembled and found out what you wanted to know, there was nothing much you could do about it," he explained. "Outside of cost records, the only thing we now keep in the operation and maintenance end of the fleet is a tire record. The only other printed form we use is the driver's report, illustrated here.

"The driver's report form is really an inspection blank to be filled out by the driver after each trip, if he thinks that there is anything to be done to his truck.

"The driver checks off daily any of those items which he thinks need attention, whether it is the steering gear or the brakes, the transmission or the clutch, the carburetor or the ignition circuit. Every platform has a pad of these printed blanks, and as the driver comes in and feels that he wants his brakes checked, he marks it, or anything else he wants attended to.

"The inspector takes it up from that point on. If he has no report from the driver, he checks the trucks anyway on all of these points.

"The platform man has these reports available at all times—the night watchman also has them; so that if a driver comes in at one o'clock in the morning, he can fill out a report without difficulty. The next morning we get that report and pick up any trouble from what he has reported. It will at least give a lead that something is wrong. They may say it is the plugs, but whatever it is, it gives you a lead.

"But even if there is no report by the driver, the inspector has a certain job to do, and that is to see that each truck is checked up after every trip. He checks the water, the lights and the battery on every trip a truck makes. He oils the generator, starter, magneto, or anything that may need even just a drop of oil. That is the inspector's job.

"We have no such thing as a periodical overhaul.

"SAFETY FIRST PAYS"

CAR NO. .....

DATE ..... CHAUFFEUR .....

CHECK IF THE FOLLOWING SUPPLIES ARE NEEDED

GASOLINE		OIL		WATER	

CHECK THE FOLLOWING PARTS THAT NEED ATTENTION

BATTERIES AND CABLES		RADIUS RODS	
BODY AND CAB		RUNNING BOARD AND FENDERS	
BRAKES		SPARK	
BUMPERS LICENSE PLATES		SPRINGS AND FRAME	
CARBON		STEERING GEAR	
CARBURETOR		TIRES AND CHAINS	
CLUTCH		TORQUE ARMS	
DIFFERENTIAL GEAR AND CASE		TRANSMISSION	
FRONT AXLE		UNIVERSAL JOINTS	
IGNITION CIRCUIT		VALVE ADJUSTMENT	
LIGHTS		WARNING DEVICE	
LOOSE OR WORN PARTS		WHEELS	
RADIATOR		MISCELLANEOUS	

REMARKS

.....

.....

.....

.....

..... MANAGER

REPAIRMAN .....

DATE .....

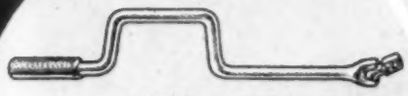
THIS REPORT IS TO BE USED IN REPORTING DEFECTS NOTED BY DRIVER AND SHOULD BE TURNED IN WHEN CAR IS RETURNED TO GARAGE.

This, and the Tire Record Card shown on the following page, are the only forms used. Note the "safety" slogan at the top of this form.

Time to RETOOL!

The Treasure Chest. 70 superb tools—sockets, handles, extensions and attachments for all types of work.

Complete in attractive steel case—with owner's name engraved on nickeled nameplate.



Short Sweep Speeder. A real "nut-hound." 90° offset for leverage—45° universal action.

Reversible "Free Wheeling" Ratchets. ⅜" and ½" square "Lock-On" drives.

MECHANICS!

I — Get set for '35. II — Check out worn and TIME-killing tools. III—Make efficiency your WATCH-word. IV—Retool with Blackhawk Wrenches — Handles — Sockets — Extensions — Attachments. V — The exclusive "Lock-On" feature saves time and tempers. VI — Sockets and attachments can't fly off. VII — Can't shake loose in tight spots. VIII—Can't drop in inaccessible places. IX—Or in your face when working below. X—"Lock-On" does away with lost sockets and prevents lost tempers. XI — Ask your jobber's salesman — send for mechanics' handy guide. XII — Yes, it's high time to get going.

BLACKHAWK MFG. CO.

DEPARTMENT FO-3 MILWAUKEE, WISCONSIN

New Series Universal Joints. Slim, tough, strong—full 90° angle.

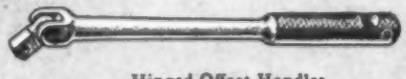
Double Hex Socket. Thin—tough—deep—smooth—chromium plated.

Heavy Duty Series Double Hex Socket. ¾" "Lock-On" Drive—⅞" to 2"

Stud Setter and Extractor. Range ¼" to ⅜".

when you see a HEX think of BLACKHAWK

"Adjusto" Lubrication Tool fits all drain plugs—square or hex—male or female.



Hinged Offset Handles for close quarters —more power

BLACKHAWK
SOCKET WRENCHES

We carry such long and heavy loads that we cannot afford to let our trucks get into bad condition, as we need every mile. And so everything is attended to as it comes up, and is either reported by the driver or caught by the inspector.

"If a truck goes out and the brakes are not properly adjusted, for example, and the truck is turned in for adjustment, and if the mechanic thinks the brake lining is o.k., but the inspector says it is no good—'pull those wheels off'—they are relined immediately, without further argument, because the inspector does not work for the shop foreman but for me, and they are always battling—the inspector and the mechanics. If the foreman disagrees, the inspector says 'all right, I'll have to report it to Mr. Price'; and I settle the argument.

"This check form is kept in a celluloid jacket to keep it clean and free from grease and soil while in use. One is hung on each truck so that the workmen can see what has to be done, and the inspector can see what has or has not been accomplished per schedule. (The top man made up these celluloid covers for us, out of imitation leather used in upholstering cars).

"The inspector checks this driver's form very carefully to see that the work is properly done. Sometimes a mechanic won't do a job right. He may only half put in a bolt, or put in only one instead of two. The inspector catches that and turns it back.

"Trucks are greased and lubricated every one thousand miles and the oil is also changed at this time. We find from experience that this mileage period is best. While there is no such thing as a periodical overhaul in our fleet we continually check up on oil consumption, and if we find a motor using a good bit of oil, we check up on it then and fix it all the way through, if necessary.

"We can do anything to a truck except regrind a crankshaft. We run a lot of heavy-duty trucks that give us between sixty and eighty thousand miles, depending upon the run and the driver. We do not overhaul them until the inspector notices that the motor is falling down in doing a job.

"We use mostly ten-ton trailers (90) and fifteen eight-ton. All trailers are closed car type (box). With them we can haul an additional payload and get a cheaper cost per ton mile.

"We operate three winch trucks in our business, which we use as wreckers, but our fleet is kept in such excellent condition of repair that we don't go out once in four months with a wrecker; but we can go clear through to New York City if necessary.

"Each truck is equipped with a Service Recorder and the safety engineer of my department checks them after each trip. If they are supposed to do a run in eight hours and they do it in 7½, well and good; but if it takes nine hours and they show any idle time on the road, they have to account for it. We only allow them to make certain stops at certain places.

"The only other form we use in the operation and maintenance of our fleet is the Tire Record Card, illustrated on this page. We work by tire numbers and keep all of the tire record cards in a small 3" x 5" index box.

"For instance, it will be reported to me that tire No. 376 went bad. I immediately pull out the card and see what its record shows. It was put on on such-and-such a date, repaired and put back on, etc., and so on until I have its complete history. I can tell at a glance whether its performance record is quite satisfactory or not.

"Sometimes a tire has quite a history attached to it. We started off with Number 1 and numbered all tires consecutively. For instance, looking at the card for Number 1 tire, we find that it gave us 31,620 miles; Number 2 gave 32,676 miles, and so on.

"This record is very simple and easy to keep. You can put in but an hour a week on it, and keep every card up-to-date. There is nothing complicated about it. I first made out a sample of this card, roughly on the typewriter while experimenting, and then had the cards finally printed up. The illustration is self-explanatory.

"From this record we can determine whether the type of tire we bought is suitable for our purpose or not; or whether or not we ought to buy another brand. This is a good way to tell whether a particular make of tire is standing up or not.

"One man takes care of the tires in our fleet. He airs them up and checks them after every trip.

"We give each tire a serial number. That is, we brand each tire as it is taken out of stock and put on a vehicle, such as tire No. 506-B-24, which means it went into service on Baltimore Transfer No. 24 truck; or if on a Hoffberger ice or coal truck, it is marked H-24; or if it is for motor freight—M. F.

"In that way at any time if I see a tire lying around the shop I can immediately tell where it belongs, without looking up the record. With these serial numbers I can find out why it is lying around the shop instead of being mounted on the proper truck. I can tell immediately where it belongs without asking questions.

"We keep more air on inside dual tires than on the outside because we figure the inside tire has more work to do. Some fleet operators may leave the inside dual tire with five to ten pounds less than the outside. We put ten pounds more in them on the theory that if we have a hard job for a tire to do, it has to do it with air.

TIRE RECORD CARD

Tire No. ..... Car No. .....

Date Purchased..... Make..... Guarantee.....

ON
Position..... Date..... Speedometer.....

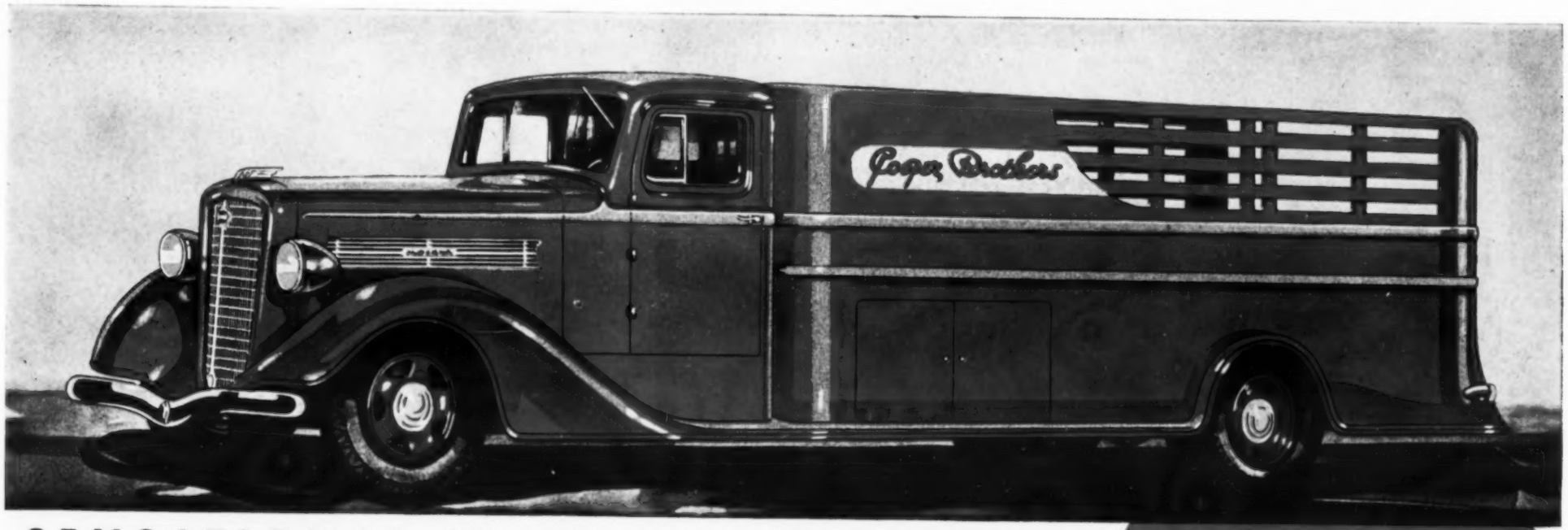
OFF
Date..... Reason..... Speedometer.....

Mileage .....

Remarks .....

.....

And here is the Tire Record Card which provides everything that the fleet head wants to know about his tires. These are the only two forms used, and the fleet is doing nicely, thank you!



SENSATIONAL IN PRICE • SPECIFICATIONS • BEAUTY

NEW INDIANA MODEL 86

Built by White

JUDGE ITS VALUE BY THIS DIRECT COMPARISON!*

Compared with the 20 models of the five leading volume manufacturers, with prices ranging from $500 to $1655, the new Indiana Model 86:

Has a larger, more powerful engine than any—263 cubic inches!

Has more main bearings than any—Seven!

Has a gross weight capacity of 11,000 pounds—more than 10 out of 20!

Has 3,650 pounds of rugged chassis weight—more than 13 out of 20!

Has a larger frame than 13 out of 20!

Has hydraulic brakes—11 out of 20 do not have!

. . . Sells for $695, chassis at factory . . . $100 below the average including the lowest price, light duty trucks!

THE WHITE MOTOR COMPANY, CLEVELAND

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*From Commercial Car Journal's Specifications Table, Jan., 1935.

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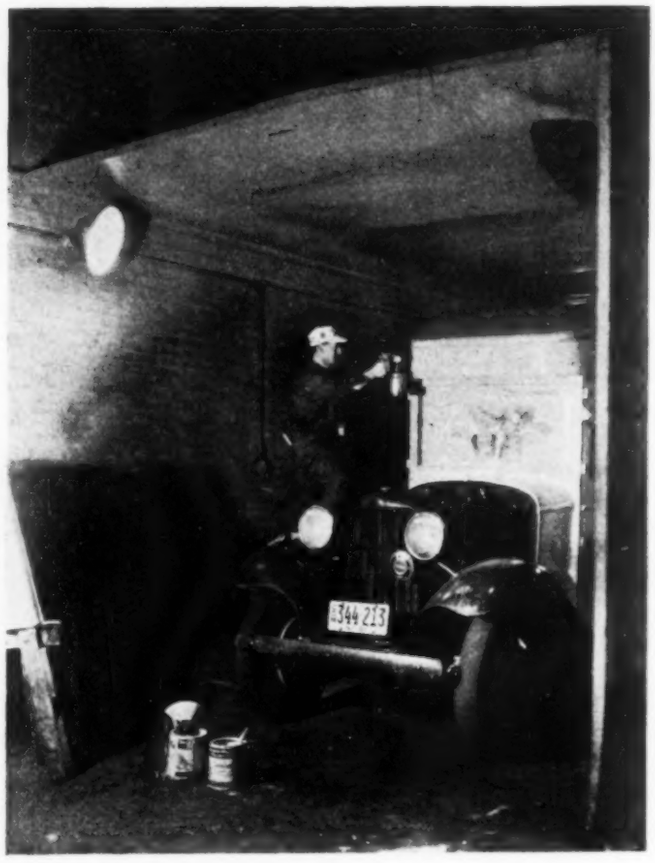
« Synthetics Solved Our

By J. D. Bradley,
Manager of Shops and Motor Equipment
Knickerbocker Ice Company
New York City



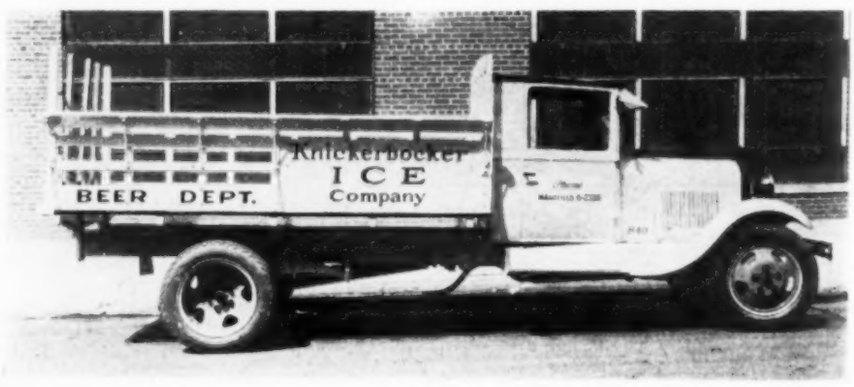
WE, at the Knickerbocker Ice Company, have practically run the entire gamut of refinishing problems, in attempting to keep spic-and-span our fleet of laundry, coal, fuel-oil and ice trucks.

The coal trucks, for example, are subject to abrasions of every sort; in addition, coal dust, moistened with water, produces a weak acid solution, to further attack our vehicle finishes. On the fuel-oil trucks, the finish must withstand the solvent tendencies of fuel-oils. In the case of ice trucks, constant moisture and extremes of temperature constitute another very serious hazard to maintenance of finish.

Then synthetic enamels came along. Since their introduction, we have continuously used this type of finish on the various vehicles in our fleet; they seemed to solve even the most stubborn of our refinishing problems and they are most satisfactory, both from the standpoints of application and longevity. They give handsome results and they *do* stand up, which is something worth talking about. Of course, like many other operators, we had considerable to learn about synthetic enamels in the beginning, but now it's a simple matter to get a perfect job.

For one thing, in our shop we do not attempt to refinish over the old paint unless it is in good condition for refinishing. On metal-faced plywood, for example, we clean down to the metal surface by dry scraping. This system avoids all the headaches due to not thoroughly removing the residue from wax or other type removers. On wood panels, we use the burn-off method. The result is that we start with a surface which is free from any extraneous matter that can undermine the new paint finish. Peeling often results from traces of wax, grease or free alkali remaining on surfaces after doing the paint-removing job.

For chassis work, we scrape-down and wire-brush. We have found this to be the most practical method for chassis parts. We then wash down the entire truck with turpentine. Some fleet men have complained of paint peeling, due to the use of gasoline and turpentine. We have found the gasoline of today less reliable for a wash down than the turpentine, because gasoline frequently contains "ethyl" or other chemicals and also leaves a trace of lubricating oil. Turpentine and naphtha, however, prove quite satisfactory if allowed to evaporate clean before painting. The evaporation of turpentine is somewhat slower, which we find to be an advantage in the removal of wax and grease.



Refinishing Problems »

NO ordinary refinishing problem was the one in this fleet. Coal trucks presented one difficulty; fuel-oil trucks another; ice trucks a particlarly tough one; and we don't have to tell you how important appearance is in a fleet of laundry trucks. That's the sort of problem which synthetic enamels solved. And we're presenting the facts, so that you can read them at your leisure.

Another step which we have found helpful in getting a good bond on smooth polished metal panels is to take a bit of fine wire wool or extra fine sandpaper and go over the surface lightly. This will give the primer something on which to grip. Particular attention is paid to galvanized iron surfaces. A rub-down with a copper-sulphate solution is most essential, and we find it best to use a special galvanized metal primer too.

Rust spots are sanded clean and treated chemically to check recurrence or migration. Otherwise oxidation might continue to take place under the new paint and show up later by loosening the paint surrounding the spot and exposing a larger rusted area.

Before applying the primer, and after each sanding, we have found that the smoothness of the final finish can be improved by setting the gun to maximum air pressure and going over the entire job (with air only) to clean it free of dust and moisture. This is particularly helpful around crevices and joints.

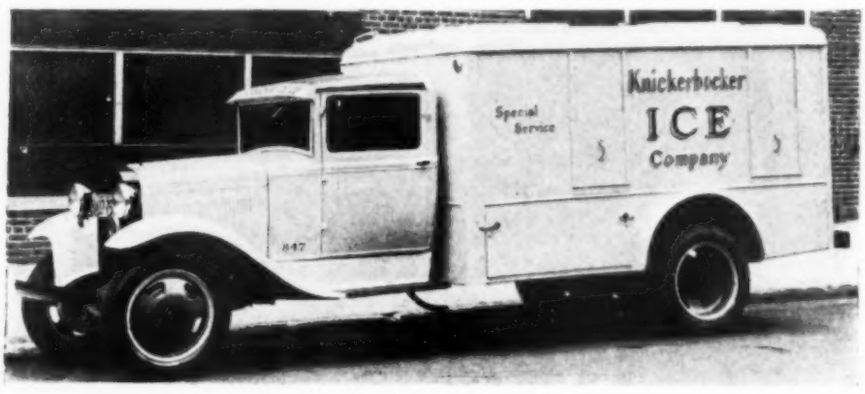
When it comes to primers, we stand pat on the ones with good powers of adhesion and elasticity. This is far more important to us than fast drying. Too often peeling and cracking occur when quick-drying primers are used. A light coat of primer is sprayed on—just sufficient to give good coverage. Too heavy a coat of primer will prevent satisfactory adhesion of the succeeding coats.

In some cases it may be necessary to fill depressions by spot-puttying. If so, we give the job time enough to thoroughly dry, before sanding or spraying on the surfacer. Two coats of surfacer give enough "build" to allow smooth wet or dry sanding with Number 320 sandpaper, after overnight drying.

The first coat of synthetic enamel we have found, should be a light or mist coat sprayed on through a special synthetic nozzle. If you notice a spot slightly off color, it is poor practice to go back over it. We find that the second coat will give perfect uniformity. We follow the first coat almost immediately with a full wet coat sprayed on with the gun set for as high as 65-70 pounds pressure. The exact pressure you use should be governed by the amount of reduction and the recommendations of the manufacturer whose synthetics you use.

The reduction for synthetics is usually from 25 to 33 1/3 per cent, depending on the make used. Insufficient reduction is likely to cause "orange peel." Too much

(Please turn to page 70)



Should Truck Springs Be Lubricated?

•

"To Be or Not To Be" (Lubricated)--That Is the Question Which We Asked Our Readers to Answer Recently--And They Did

•

By H. Clay Fischer,
Editor, FLEET OWNER

SOME time ago it was our pleasure to visit with a local "spring specialist" whose sole business is leaf springs for cars, trucks and buses. Besides picking up a few ideas in his shop, we went home with some new thoughts on the subject. One of the things we learned is that there's more to it, than simply waiting for a spring to break and then replacing it with a new one. Springs, he told us, should get just as much attention as tires, valves and spark plugs, and some time in the not too distant future he promises to outline a sensible spring-maintenance procedure that every fleet operator can perform right in his own shop.

One of the things we questioned him about was spring lubrication. That's when the "fireworks" commenced. We readily conceded that it would not be considered good lubrication to merely apply, at periodic intervals, a smearing of used crankcase oil with an old paint brush. But when he told us that it's not altogether correct to spray springs with penetrating oil from time to time, that's when we became a little more difficult to talk to.

One of the things he did tell us, however, was that good spring performance is based on leaf-friction as well as the tension or "rebound" properties of the springs themselves. So we decided that this would be a good time to end the argument, until we had an opportunity to see what fleet operators had to say on the subject. The result was "Question No. 51—Spring Maintenance," which appeared in our December, 1934 issue, and which brought replies from 65 fleet operators.

So, among other things, we asked the question: *"How often do you lubricate truck springs?"* Twenty (out of 65) operators came back with the reply that they do *not* lubricate truck springs at any time. The other 45 answers ranged from every week to every year; from every 1,000 miles to every 10,000 miles. Most of the operators who reported that they lubricated springs, did so by *spraying* them with spring, graphite or penetrating oils.

We admit that it's quite a task to completely dismantle a spring every so often, for the purpose of graphiting the leaves. But that's one sure method of providing just the right amount of lubrication, it seems to us.

One operator reported that there was considerable discussion on the subject of spring lubrication in his shop and he held the opinion that lubrication was *not* necessary on truck springs. And that it even caused spring breakage on heavy trucks. This reply hit us right between the eyes and we decided to investigate further. Here are some of the *opinions* that we picked up among fleet executives, truck mechanics and spring "specialists."

Too frequent lubrication of truck springs, it seems, will sometimes result in excessive flexing, which is conducive to spring breakage, particularly when the truck is running light. On the other hand, when the truck is loaded (not overloaded), spring action is less violent and breakage is not so likely, regardless of lubrication. The general concensus of opinion, however, is that truck springs *should* be lubricated periodically, depending on the type of operation, character of routes and mileages travelled.

The next question is *"What kind of a lubricant to use?"* Although we exhausted many sources of information, we failed to find any table of lubricant specifications for truck springs. We did find one on passenger cars, however, and noted that various lubricants are recommended, including cup-grease mixed with flake graphite, engine oil, petroleum jelly, spring-cover lubricant, and graphite grease. The last-mentioned seemed to be the one most recommended, and since most passenger cars are equipped with metal-spring covers having grease-gun fittings, that sort of lubrication becomes a simple task.

If we are to conclude from the above that graphite is the most suitable lubricant for truck springs, many will come back with the question: "Well, how can we apply it—you don't expect us to take the leaves apart and plaster it on with a putty knife, do you?" That's a good question, we'll admit, and our reply is that it need not be done very often, twice or

(*Please turn to page* 63)

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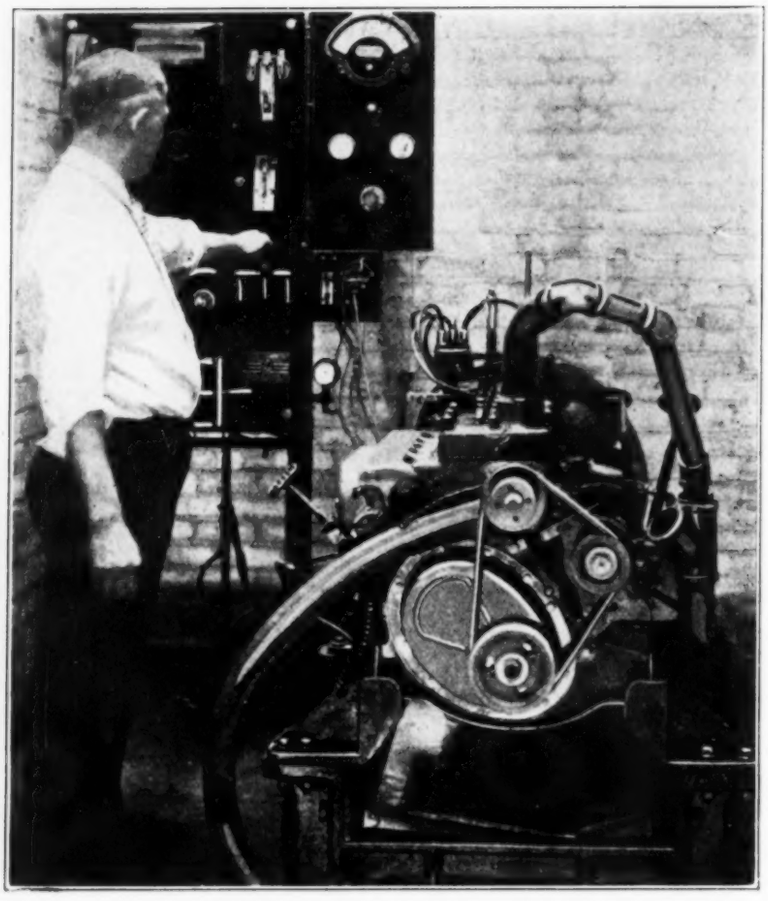


A BUS Maintenance Executive gives us an intimate description of the engine dynamometer recently installed in his shop. . . . And outlines all of the advantages and benefits derived. . . . He believes that every large motor vehicle fleet shop should be provided with similar means of running-in and testing reconditioned engines.

By H. T. Hurlock,

Asst. Superintendent of Rolling Stock, Eastern Massachusetts Street Railway, Brockton, Mass.

« Engine Dynamometers Do

IN the maintenance shop of every large motor vehicle fleet, some means should be provided to run-in and accurately test reconditioned engines. Prior to the installation of a 150 h.p. General Electric engine dynamometer at one of our major overhaul shops, all of our engines were run-in at "idling" speed *after* installation in the motor-coach chassis.

This procedure often required from 30 to 50 hours, and delayed delivery of the vehicles to the operating department. Troubles often developed that were difficult (and sometimes expensive) to remedy, with the engine in place in the chassis, and considering all things, the procedure was found to be generally unsatisfactory. So we installed the dynamometer equipment.

We have found the installation of dynamometer testing equipment to make a very valuable addition to our shop equipment, and the following distinct advantages have been noted:

(1) Greater reliability of engines after leaving the shop.

(2) Accurate adjustments possible, particularly for fuel economy.

(3) A knowledge that rebuilt engines are thoroughly run-in and will develop their full horse-power.

(4) Accurate adjustments possible to all accessory equipment, such as carburetors, distributors, generators, clutches and transmissions.

(5) A reduction of idle time of vehicles in the shop.

There are several special features in connection with this dynamometer installation that are worthy of mention here. First, as a safety measure, the gasoline supply tank is located underground, and all unused gasoline will flow back to the tank from fuel pumps, piping, etc., after the dynamometer is shut down.

One of our real problems of installation was the matter of exhaust noise, since residences are located close to the shop and it was desired to operate the dynamometer during the night. This problem was solved by installing two large Maxim silencers in the exhaust line, one located near the engine and the other above the roof. Since then, our neighbors have registered no complaints, although engines frequently operate under load throughout the night.

A shop-designed water-cooling tank is used in place of a radiator. This is equipped with thermometers and thermostats, and can easily be regulated to keep the water temperature at 160 degrees Fahrenheit.

Adjustable engine supports are provided to accommodate any engine we now operate. Fuel is lifted to the engine from the underground tanks by means of two duplex electric fuel pumps. All pipes and cables have been run underground to give a clear passageway on both sides of the dynamometer and engine stand.

After each engine is rebuilt in our shops, it is placed on the dynamometer, complete with transmis-

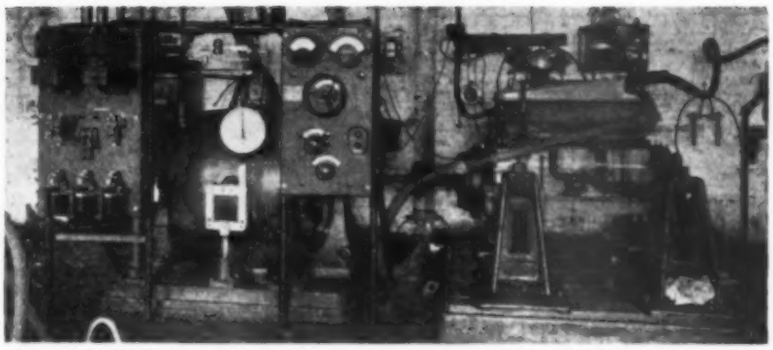
sion and clutch, and is *driven* for about three hours, using the dynamometer as a motor. Light oil (S.A.E.20) is used during this "running-in" period.

The engine is then given gasoline and spark and is run under its own power at "idling" speed for a half hour, with no load. Then a small load is added, this being increased in small steps, and the engine is permitted to run throughout the night at about 800 revolutions per minute, with a load amounting to about 25 per cent of its horse-power capacity.

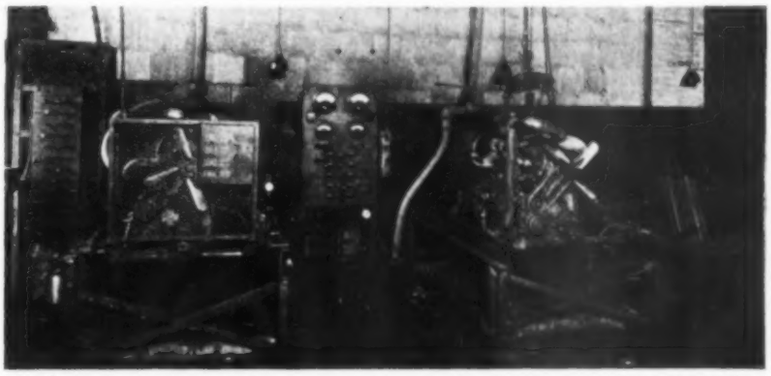
Our night watchman has been thoroughly instructed as to reading the dynamometer instruments, which he does every half hour. He also listens for any "unusual" noises and if any trouble develops he simply shuts down the motor until the morning.

The next morning a friction horse-power test is made at 1,000 revolutions per minute and if the engine is running-in satisfactorily, it is shut down and a mechanic goes over the entire engine, tightening cylinder head bolts, manifold studs, oil-pan studs; adjusting tappets, clutch, etc. Then the engine is started up again and the load and speed are gradually increased and adjustments made to distributor and carburetor for maximum horse-power output.

Brake horse-power tests are then made



Here is a 150 h.p. engine dynamometer of the type described by Mr. Hurlock. It is used in a similar operation—a bus fleet. This picture was taken in the shops of the Northern Ohio Power & Light Company, Akron, Ohio. Read the text for details.



And here is a picture of the engine-testing equipment taken in the Philadelphia shops of Mitten Management, Inc., some time ago. The author of this article points out five distinct advantages of engine testing equipment.

Reduce Running-In Costs »

with wide-open throttle, at six or eight different speeds for one minute each. This is immediately followed by a final friction horse-power test at 1,000 revolutions per minute. During the brake horse-power tests, an air-fuel-ratio analyzer is used to quickly measure the contents of the exhaust gases, and where necessary, adjustments are made to the carburetor to produce efficient gasoline combustion.

Then the transmission is checked for operation in all speeds and the clutch is also adjusted. If the entire power-plant then comes up to specifications during these tests, and is ready to go into hard service without any further adjustments, it is removed from the dynamometer, for installation in the chassis.

All test data and other pertinent information obtained as a result of the dynamometer tests, are recorded on a printed form, which is filed away in the fleet records for future reference.

We endeavor to maintain the same standards of workmanship and thorough testing on reconditioned units of all kinds before they are returned to service in the fleet.

An electrical test-bench is provided for testing starting motors, generators, ignition coils and condensers. The use of this equipment has made it possible for us to set voltage regulators more accurately and by thus eliminating b a t t e r y overcharging, the life of both generators and batteries has been materially prolonged.

An electrical test-bench of this kind is indispensable in any large fleet shop, and saves considerable time in adjusting and regulating the various electrical units before installing them on the vehicles.

(EDITOR'S NOTE: The information contained in this article has been abstracted

(*Please turn to page* 68)

In case you do not wish to invest in laboratory equipment, here's a simple engine running-in stand. An old electric motor, a rheostat, and a discarded transmission are so hooked up that they can run-in any motor, at any speed. A fleet man built this outfit.

By Jesse T. Smith,
Pres. and Gen. Mgr., Yellow Cab Company, Cleveland, Ohio

How Fleets Can Cooperate in Community Safety

Safety Contests Should Be Perpetual, Says Fleet Official, in Recent Discussion at Cleveland Safety Congress

COMMUNITY Safety Contests should go on all the time; they should be perpetual. Let me suggest that any contest which starts and stops and then starts up again, isn't much better than no contest at all, for the driver, after each contest ends, feels the lack of incentive. Community Safety contests should go on all the time, with cups to the winning companies and individual button awards twice a year to the drivers.

In Cleveland, all drivers for department stores, for example, are enrolled by the Safety Council in the contest. The driver who goes six months without an accident gets a button. The driver who goes a year gets a button. The driver who goes 18 months gets a certificate signed by Judge Lee E. Skeel, head of the Cleveland Safety Council. And drivers are proud of these buttons and certificates. They are more than proud, one operator of a fleet here explained. They use them to get out of scrapes when they are up before the judge for something that happened when they were driving their own personal cars, or to get other jobs.

Too Long at the Wheel? Fatigue, caused by continuous driving without sufficient rest, is said to have caused these and many other smash-ups. These and other interesting pictures and data appear in a book entitled "Too Long at the Wheel" issued by the National Safety Council, Chicago. Public officials and fleet executives will find this book full of interesting material.

Now, how can fleets cooperate in community safety?

First, I believe, every fleet operator should ascertain the facts of every accident in which one of his drivers is involved—age, general intelligence, health, eyesight, hearing, also all the facts about the machine, traffic conditions, etc. A thorough investigation of the accident would also make it easier to apply proper discipline.

Second, I believe there should be a way to submit such accident data to some central agency, such as your local Safety Council, for tabulation and study. A record of accidents involving just the 15 or 20 drivers of one fleet may not have much practical value. A record of accidents involving a substantial percentage of all the commercial drivers in a city should reveal what causes the majority of accidents and provide a sound basis for developing preventive methods.

If the general accident record shows that a certain type of man, mentally and physically, is an accident-prone driver, we could eliminate that type by using standard mental and physical tests for driver applicants, by developing a standard instruction course in safe driving, by preparing a safe driving code and by improving methods of driving discipline.

Now, what about the machine? Our accident record—covering most of the accidents involving commercial vehicles in the city—should tell us something about the accident-prone vehicle. Its size; its speed range. Its brakes—their type and efficiency. Its ease of control. The comfort and ready vision it gives the driver. Also—and here is an important item—the ventilation in the driver's compartment. I think a lot of accidents are caused because the driver does not get fresh air enough to keep him mentally alert.

If we know the type of machine involved in most accidents, we can improve methods of maintenance and mechanical inspection on the basis of facts, not guesses. And we as commercial users can, as a group, insist that the car manufacturers improve the margin of safety for the public and our drivers and ourselves. Accident records should also show us to some degree the effectiveness of various types of traffic signals and signs.

Finally, we come up against traffic laws and their enforcement as a means of preventing accidents. Our accident record—and we could compare one community with another in this—should show us what type of regulation and what type of enforcement is the best accident preventive. Parking regulations would furnish us an excellent example. We might find that "No Parking" signs on certain downtown streets would help to stop accidents. We might find that such signs and all other traffic regulations are absolutely useless when 50 per cent of the traffic law violators never get a ticket, and a considerable percentage of those who

(*Please turn to page* 67)

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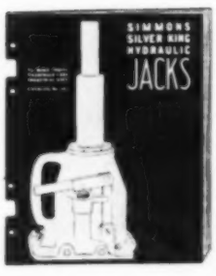

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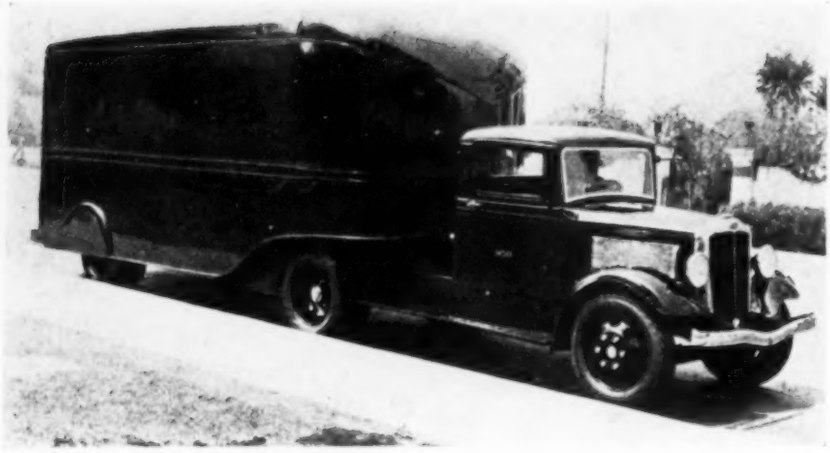
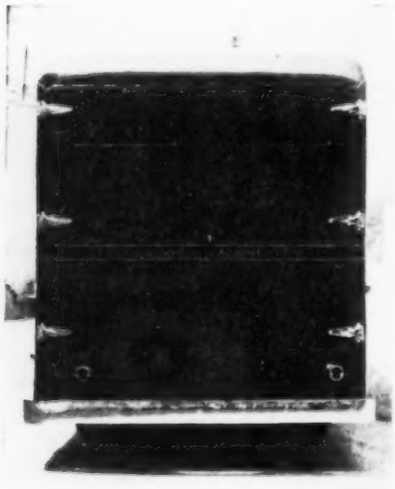
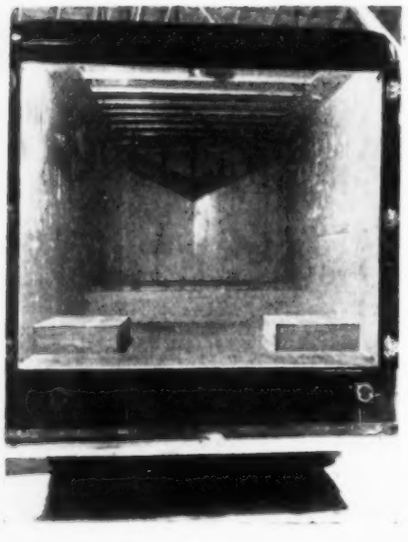


THIS tractor-semi-trailer was secured as an experiment, to see how well it would replace a conventional 5-ton truck. Was the substitution a success? The answer is "Yes"—so successful, in fact, that they bought two of them, instead of one.

« Two Busy Bodies

Front and back views of the semi-trailer body illustrated above. Fruehauf gets the credit for the trailer and White for the tractor. The advantages? Read the accompanying article and see for yourself.





VISITORS to the shops of United Parcel Service, both in New York City and on the West Coast, can always find plenty of activity in the body-building departments. Two of their most recent developments in the acquisition of new or rebuilt equipment are described on these pages. One comes from the West Coast—the other from New York.

The management of United Parcel Service on the West Coast encountered somewhat of a problem in transferring merchandise from their central plant in Los Angeles, to their distributing station in San Diego. The adaptation of a tractor-semi-trailer unit as the transfer vehicle, resulted in a very satisfactory solution to the problem.

Heretofore, the Company had been using a 5-ton, 28-foot, conventional 2-axle truck, but they found that much time was lost in backing it into the distributing station. The truck had to operate on a very close schedule and much time was consumed in maneuvering it into the proper unloading position at the distribution station.

Therefore, the tractor-trailer unit illustrated here, was secured as an experiment, to see if it would satisfactorily replace the aforementioned truck and effect the necessary economies. They found that it could be turned completely around in the station, and could be backed to the loading platform in much less time than the truck. In fact, it was found to have so many additional advantages over the truck, that a second tractor-semi-trailer unit was purchased for transferring merchandise from Los Angeles to their distributing station in Ventura.

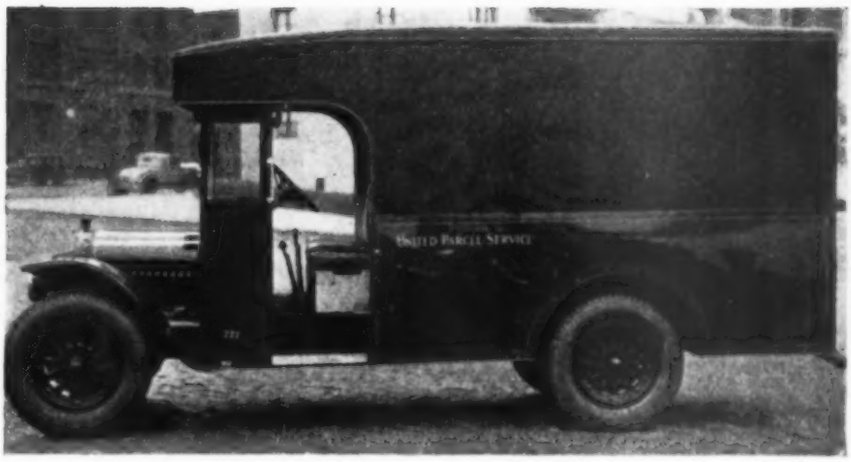
White tractors and Fruehauf semi-trailers comprise the new units. The tractor alone weighs 5,225 lbs., the semi-trailer 6,110 lbs. Cubic capacity is 1,017 feet. A 10-ft. clearance is required for the passage of the unit, which has an inside height of 7′ 6″, and a width of 7′ 4″ inside and 8′ outside, the maximum allowed for commercial vehicles (except buses) in California.

The unit has a maximum speed of 42 miles per hour with a gear ratio of 5.88 to 1. Springs are semi-elliptic. The tractor is equipped with overload springs on the rear that help to support a load over 2½ tons. Total gasoline capacity is 42 gals., there being an auxilliary gasoline tank under the skirting behind the cab. The unit runs about 10 miles on a gallon of gas. Four tires support the trailer, and 6 the tractor. All are interchangeable. The front support wheels can be lowered when required, so that the trailer can stand by itself or be rolled about, when detached.

The trailer is a Fruehauf 18 ft. job, with channel drop-frame extending the full length of the body. The rear axle has a capacity of 10,000 lbs., and is equipped with 17 x 3½ Lockheed hydraulic brakes, controlled by a booster which is operated by a hand-valve in the driver's cab, much the same as a motorman's air brake control on a trolley car. A storage tank mounted on the trailer frame stores

(*Please turn to page* 68)

INSTEAD of trading in these old chasses, they are given a thorough rebuilding and are equipped with a body which affords the maximum in loading space. The body construction is so new and different that it certainly warrants most anybody's attention.



in the U. P. S. Fleet »

HERE is something new and different in delivery body construction—a steel-floored truck which eliminates that waste space beneath the body between the frame of the chassis and the outside skirt, which in the case of deluxe or semi-deluxe bodies usually comes down to running-board level.

Conventional bodies have always been built with wooden or steel cross sills laid across the chassis frame and covered by flooring. This flooring usually is level, although in many cases there are wheel-housings taking up some of the space at each side. For years Willard D. Bixby, Manager of Motor Equipment for United Parcel Service, has been trying to work out a truck design that would provide a good looking and roomy body that could be manufactured at a lower cost than has been found possible heretofore.

Realizing that a substantial increase in body-capacity would be gained, it was decided to experiment. Ordinarily 8-gauge sheet steel in three sections was purchased. Two of the three sections were flanged on each side so that they could be laid directly over the chassis frame, the sides of the flanges lying close to the sides of the chassis frame itself. These provided a flat floor the full width of the chassis, lying directly on the chassis frame with no underlying support, the first flange dropping to running-board level.

From this point the steel was flanged outward on each side to approximately the width of the standard running-board. Then it was flanged again, this time upward about 8 inches, from the running-board level toward the top of chassis. This left a well or trough on each side of the chassis. The front and middle sheets were flanged in the manner outlined above; the third sheet was flanged in such a way that it hung crosswise at the rear of the chassis frame, forming a step or well the full width of the body. The sides and end of this well-section were flanged up the same as were the front and middle sections described above.

The three sheets of flanged steel were then laid on the chassis frame and the edges were arc-welded together forming a solid steel floor. An acetylene cutting torch was used to cut out a section of the floor at the forward end where the floor boards are located and also to allow the gasoline tank to come up through the floor under the seat. The torch was also used to cut out the flange on both sides and at the rear, where openings or doors were to be located. A piece of ¼" round iron was welded across the edge of the well at the rear door opening to stiffen the floor at this point.

The balance of the body was built in the conventional manner, with wood pillars or ribs—covered below the belt panel with 22-gauge steel and above the belt panel with black top-decking similar to Pantasote. Ordinary square steel tubing, cut in sections the height of the side flanges, were welded at intervals along the flange where side

(*Please turn to page* 68)

Front and back views of the "rejuvenated" Whites. And the operation was performed without monkey glands. The ingenious construction of the body, with a minimum of wasted space, provides 295 cu. ft. of usable space.

Modernizing an Old Hook-and-Ladder Job

By R. B. Miller

Lots Easier to Buy a New One, of Course, But When Finances Won't Permit, Here's How to Save $10,000:

A SHORT while ago a city in the Southeast was faced with the need of either buying a new fire truck or being handicapped with a shortage of apparatus. A new and more modern truck would have cost in the neighborhood of $11,000, as the old truck had practically no trade-in value.

The city could not afford to buy a new one; so the welding operator for the Fire Department, (he was in fact, one of the regular fire-fighting force but had worked previously as a welding operator for a manufacturing plant) hit upon the idea of reconditioning the engine completely and then welding a new frame or body for the truck along modern and up-to-date lines. Preliminary calculations convinced the Fire Department officials that such a procedure was not only practical, but in the opinion of several of them, a wise thing to do.

What they did for a total outlay of approximately $500 for all materials, including the cost of new engine parts, is a bit short of amazing.

The old truck frame which was found to be broken in two places was repaired with the blowpipe. The aluminum crank case on the motor which had four breaks in it was also put back into good shape. An entirely new truck body was then fabricated by means of the oxy-acetylene blowpipe.

The old truck had been what is known as a single bank truck, that is, it provided for carrying less than 200 ft. of ladders on top of each other and each length of ladder was supported by an individual set of rollers. The new design permitted by all-welded construction enabled them to install a double bank truck body with a capacity of 340 ft. of ladders and with the complete elimination of the roller supports.

Oxwelded sliding supports, which did away with the wear and tear on ladders formerly caused by the roller guides, were used. These also prevented to a large measure the rattling and noise incidental to the older type of support while the truck was in motion.

The tool carrier basket on the old truck was 30 in. x 8 in. x 9 ft. Because of double banking of ladders they were enabled to lower the maximum height of the truck by 14 in. even after building on top of the new truck body a tool carrier basket measuring 48 in. x 12 in. x 20 ft. A fireman can now easily reach anything in the basket by standing on the running board, whereas formerly he had to climb on top of the truck to get anything out of it.

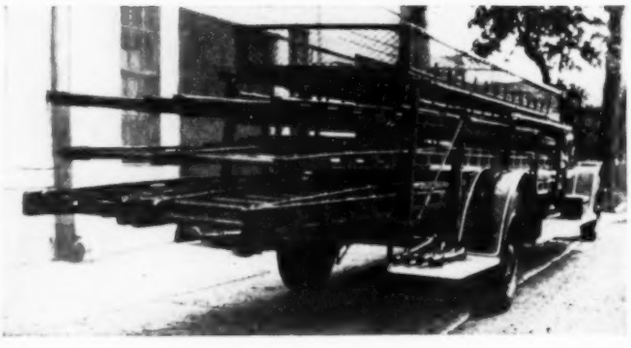
The larger basket is a big help in other ways. For instance, they can also carry the life net in it as well as the tools. The life net previously had to be carried in a special compartment and it took quite a few moments to release it. In addition, tarpaulins and other articles that formerly had to be left off this truck can now be carried. Ingeniously designed individual tool racks were also installed after being completely fabricated by oxwelding.

Another interesting feature was the fabrication of water tanks to replace the existing equipment. The old tanks were cylindrical in shape but it was discovered that by building square tanks, the water capacity could be increased greatly.

The oxy-acetylene service operator who saw this job, reported that it was a beautiful piece of work and an extremely efficient piece of apparatus.

The one thing that this particular Fire Department is most proud of is the fact that all of the work was done by their own regular organization, including even the painting. The men believe, and it is felt that others will also agree with them, that they have done the taxpayers a good turn by doing a job for about $500 as against a cost of approximately $11,000 for a new truck. What is even more important is the fact

(*Please turn to page* 71)



Two views of the fire truck after modernization. Ox-welded fabrication permitted this attractive job to a 17-year old vehicle and provided greater carrying capacity.

REO ENTERS LOWEST-PRICE TRUCK FIELD WITH NEW 1½ TON SPEEDWAGON

New Low Price

$535 CHASSIS F.O.B. LANSING PLUS TAX

Dual wheels extra

● Here's live, vital news for thousands of truck buyers who have always wanted Reo Speedwagon performance, power, speed and stamina—but who have heretofore been unable to pay Reo quality prices:

A brilliant new Reo 1½ Ton Speedwagon powered with the new Reo-built Silver Crown truck engine and featuring maximum loading space, streamline appearance and hydraulic brakes—at the amazingly low price of $535.

Now Reo truck quality and enduring value are within reach of all. For only a few dollars more than the cost of the lowest priced truck, you get typical Reo long life, extra service and satisfaction. More important still, you get a definite Reo PERFORMANCE GUARANTEE which assures you of satisfaction in advance of the purchase.

Reo's great new Silver Crown truck engine is especially designed by Reo engineers for fast, economical transportation of goods. Lo-Ex pistons, valve seat inserts and a score of other superb features contribute to a wide range and regularity of service that formerly called for a much higher investment.

Built for discriminating buyers who insist on quality, but must also consider price, the new Reo Speedwagon merits your immediate consideration. There is a wide range of Reo-built body-styles matched to the Reo chassis to provide a complete, coordinated Reo-built unit. You can depend on this sturdy Reo truck to do your job at lowest cost.

POWERED WITH THE SENSATIONAL NEW 6 CYL. SILVER CROWN ENGINE

REO-DESIGNED—REO-BUILT

Reo Speedwagons and Trucks range from ½ to 4-6 tons including Tractor-Trailers and Buses. Prices from $495 up, chassis f.o.b. Lansing, plus tax. Special equipment extra.

Prices subject to change without notice.

REO

MOTOR CAR COMPANY

LANSING, MICHIGAN

STANDARD BODY TYPES FOR NEARLY EVERY HAULING NEED

FOUR INTERESTING FLEET OPERATIONS

An Interesting Line-Construction Fleet

BETWEEN Great Falls, Montana, and the construction site of the great Fort Peck Dam—a distance of 288 miles—this specially-built fleet of Ford V-8 trucks is acting as the official patrol fleet for the power lines which carry 154,000 volts to be transformed for use on the dredges operating at the huge dam.

Operating day and night, to insure that there is no failure of power to the machines at the site of the dam, the fleet of seven trucks bears special equipment for repair work, including pole derricks, winches, steel cables, numerous special tools, pole trailers, and complete first aid kits.

Special cabinets are built into the bodies of the trucks. These cabinets are provided with steel trays for small tools and with brackets for larger repair equipment. Winches are power-operated by the V-8 motor. The special pipe and pole trailers, with dual wheels, are of the balanced load type that carries the entire load on the trailer.

●

Uses Insulated Trucks for Beer Delivery

THE A. B. C. Brewing Corporation gets a lot of worth-while advertising as its six new, attractively-finished International motor trucks, one of which is shown in the accompanying illustration, speed the delivery of A. B. C. beer to all parts of the Greater St. Louis area.

The distinctive art motif of the bottle label is copied in the advertising on the truck bodies. The same colors used on the label—black, white, blue, and orange, are used on the truck. The rest of the body is an aluminum color while the cab, chassis, and wheels are yellow, and fenders black.

The same art motif is also used in the company's billboard and newspaper advertising. Thus, the advertising on the trucks is coordinated with all other types of advertising and each type has a direct tie-up with the bottle label and so with the beer within the bottle.

The six trucks are worthy of mention too because of their enclosed insulated bodies which enable the A. B. C. Brewing Corporation to deliver its beer in good condition even on long runs. Each body is 12 feet 4 inches long, 7 feet wide, and 5 feet 6 inches high. By double decking, each has a capacity of fifty-six half barrels, which are loaded from the rear and unloaded from the side.

Swinging doors are at the back and sliding on the sides. The bodies are of all-steel construction on the outside and between this metal and the wood paneling on the inside is ½-inch cork board. Manually controlled ventilators are at front and back.

The trucks shown are operated for the A. B. C. Brewing Corporation by the Luecking Transfer Company, St. Louis.

●

Kingan and Company Have Big Truck Fleet

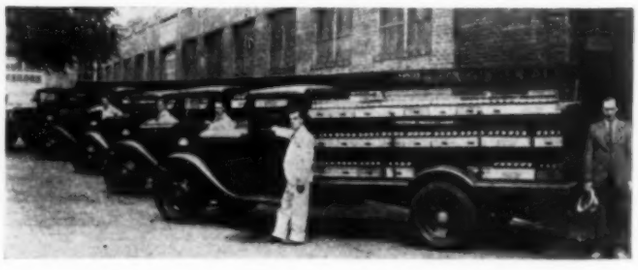
IN the accompanying illustration are shown three recently purchased 1½-ton Internationals operated by Kingan and Company, meat packers of Indianapolis. This well-known, long-established concern began buying Internationals in 1930 and now there are forty-eight units of this make in its fleet of 167 motor trucks, which are operated in various parts of the country, in Indianapolis and environs as well as in other centers where branches are maintained.

For city work, the Kingan and Company motor trucks are usually of the 1½-ton size equipped with custom-built express bodies as shown. The trucks are painted an attractive French gray while the advertising message, especially the company name, and the Kingan

(*Please turn to page* 71)

●

Four Tons Carried on These 1½-Tonners



THIS fleet of Ford V-8 trucks, operated by the Root Rock Bottling Company, Inc., of Washington, D. C., has expanded the sales area of the bottling company into sections that previously were considered beyond reach.

George Mendes, head of the company, has reported that his truck fleet is more than adequate to carry the pay load of 122 cases, or about four tons for each truck, on long country runs.

Don't

STORE DOLLARS

. . . on your Spare Parts shelf

Fleet owners can arrange to have Fafnir distributors carry their ball bearing replacement needs. Each distributor will be glad to stock the complete range of sizes required by any fleet operator. Thus the Fafnir distributor becomes your spare parts storeroom . . . and money that ordinarily would be tied up in replacement bearings can be invested in other ways.

When Fafnir Ball Bearings are used, calls for replacements occur less often. Maintenance costs are materially reduced — the miles between each new set of bearings are lengthened. The precision, accuracy and long life of Fafnir Bearings are responsible for these savings.

Fafnir will be glad to give you complete details on using the distributor's shelves as your own. Simply address a card to the Service Department, FAFNIR BEARING COMPANY, New Britain, Connecticut. *Warehouse Stocks Located in*: Atlanta . . . Chicago . . . Cincinnati . . . Dallas . . . Kansas City . . Los Angeles . . . Minneapolis . . . New Orleans . . . New York . . . Pittsburgh . . . Portland, Ore. . . . San Francisco.

Safeguarding Quality

FAFNIR BALL BEARINGS

The TROUBLE SHOOTER

A department, devoted to correspondence from readers of FLEET OWNER. Any questions having to do with automotive service will be answered in this department. All properly signed inquiries will be replied to by mail and such of them as are believed to be of possible interest to other readers will be published in these columns.

Loads Too Heavy; Equipment Too Light?

Question: *We are hauling a* 17,000-*lb. payload on a* 1½-*ton tractor with semi-trailer from St. Paul, Minn., to Salina, Kans., a distance of approximately* 1,400 *miles round trip. The heavy grades are mostly east of the Missouri River. We are having a terrific amount of tractor trouble, such as broken axles, stuck rings and gear replacements. The equipment used is a* 1934 *job, with what is known as a "2-ton" rear end. Some argue that this equipment is big enough for a* 17,000-*lb. payload. We would like to have your opinion of the matter, also suggestions from other operators.—The C. Company, Salina, Kans.*

Answer: We do not care to go on record as making a flat statement that your equipment is too light, although deep down in our heart we feel that it is. The fact that you are having rear-end trouble and broken axle shafts should convince you that your loads are too heavy, *unless* you are completely neglecting the factor of adequate lubrication.

Of course we have heard of many other operators hauling even as high as 10 to 14 tons on 1½-ton tractors with semi-trailers. Some are having considerable rear-end trouble and others are just kidding themselves because thus far they have been lucky in being able to do it. You've heard the old story of "working a willing horse to death" and frankly, we believe that is exactly what these people are doing.

On account of excessively high maintenance costs, many of these heavy-loaders are not getting such satisfactory cost-per-mile figures as they would obtain with the proper truck equipment. Some do not stop to figure their costs, as long as they can keep going. Others do not realize that they are writing off a heavy depreciation on their equipment, whether it actually is entered on their books or not. They are also neglecting the safety factor, as it is doubtful if the small brakes can handle such a load.

If you insist on carrying these loads, we might suggest the use of a good six-wheel unit for the tractor, oversize universals and drive-shafts, if obtainable; and make certain that you are using the best extreme pressure lubricant that you can buy.

●

Should Truck Springs Be Lubricated?

Question: We have had some discussion in the shop as to whether or not truck springs should be lubricated. We mean from 1-ton up. It is our opinion that lubrication causes spring breakage on heavy trucks. Will you kindly give us your opinion on the subject?—R. M. E., Newark, Ohio.

Answer: Sometimes too frequent lubrication of spring leaves will result in excessive flexing which is conducive to spring breakage, particularly when trucks are running light. When trucks are loaded (not overloaded) spring action seems to be less violent and breakage not so likely, regardless of lubrication. That's only *our* opinion.

It would seem to us that truck springs *should* be lubricated periodically, depending on the type of operation, character of routes and mileage travelled. Several manufacturers recommend graphite grease. Of course, this cannot readily be applied after the spring is once assembled, without taking the spring down and separating the leaves. Painting them with crankcase oil, or spraying them with penetrating oil is sometimes of doubtful value, as you can't tell whether or not the oil has actually reached the surface intended.

On the other hand, if you do *not* lubricate the springs at all, and allow them to become quite rusted, there is always the hazard of breakage of main leaves, axles, hangers, brackets, etc. Besides you will get much harder riding and no one wants their trucks to ride like the well-known "hay wagon."

We feel that there should be a happy medium somewhere, between excessive and under-lubrication. If you can take the leaves apart and grease them, three or four times a year should be sufficient. If you are willing to speculate, the old "paint-brush" method might be used, or else the more modern method of spraying with special spring penetrating oils. You

You May Not Believe It!

(But It's True)

THE FACT:

STREAMLINING of motor cars, busses or truck cabs gives no important economies, either in first cost or in operating costs.

THE PROOF:

THE authority for this statement is none other than Alfred P. Sloan, Jr., who thus committed himself in a recent letter to General Motors stockholders. The only possible gain that streamlining can give is a somewhat higher top speed, and at such speeds perhaps a slight saving in fuel, he said.

WERE YOU BLAMED FOR ANY

OF THE

36,000 Deaths

CAUSED BY AUTOMOBILE ACCIDENTS IN 1934

?

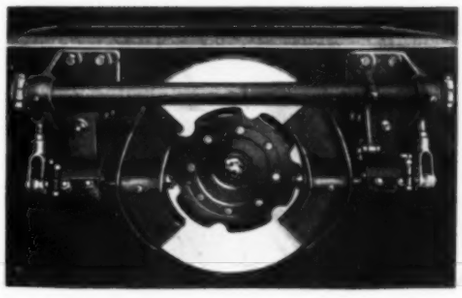
THE Tru·Stop Emergency Brake

WITH ITS 300 TO 1 LEVERAGE

will put you on the safe side!

● As a fleet operator you have three distinct responsibilities: First, service to your customers; second, the economical operation and upkeep of your equipment; third, *your responsibility to the public!*

If you don't live up to the last one you cannot live up to the first two, therefore, your business is bound to be affected.



Tru-Stop Emergency Brakes will put you on the safe side. There is simply no substitute for good brakes. We believe that Tru-Stop Emergency Brakes *are* the best brakes available.

They have an over-margin of power—a leverage of 300 to 1—more efficiency than is really needed. They are made with either single or double shoes. They are easy to adjust. They are easy to replace.

The new laws of the various States set definite standards for brake performance. Tru-Stop Emergency Brakes more than comply with the performance requirements that are stipulated.

AMERICAN CABLE COMPANY, INCORPORATED
Automotive Division
An Associate Company of the American Chain Co., Inc.
Bridgeport, Conn.
Manufacturers of the famous
WEED TIRE CHAINS

TRU·STOP EMERGENCY BRAKE

may choose your own time interval, but not oftener than once a month, we'd say.

We sincerely believe that there's a *real* field for research in this direction and in the early future are planning to have an article on this subject. Not based on someone's "high-hat" theories, but as with all articles which we publish, we will see that this is one based on practical experience with truck springs. You'll be looking for it, won't you? *(Fleet operators are invited to give us any dope on this subject and letters will be most welcome.—H. C. F.)*

●

Relative Tire Wear on Different Roads

ALL of us know that tread wear causes a disappearance of rubber from our tires. How it disappears is shown in tests conducted recently over various road types by Washington State College and other agencies, as covered in the Sixth Annual Report of the Highway Research Board.

The graph accompanying this article is self-explanatory. The case for concrete is based upon the following facts: On concrete, tires give 4-1/3 times the service given on macadam; or 2¼ times the service given on bituminous macadam; or twice the service given on gravel; or one-third more service than on brick.

Other maintenance costs are also greater. Obvious indications of higher costs are bumps and bounces, dust, loose surface material, oil-spattered vehicles, and detours for frequent road repairs. The following table will also be of interest:

When driving on concrete—

Rather than on	You Save per mile	You Save on 7,000 miles (Av. annual travel)
Rough gravel or Macadam	2c	$144.00
Good gravel or Macadam.	1¼c	87.50
Bituminous surfaces....	¾c	52.50
Bituminous concrete or Brick	¼c	17.50

●

E. P. L. Specified for Ford V-8

ADOPTION of extreme pressure gear lubricants as standard for the rear axles of Ford V-8 cars and trucks was announced recently by the Ford Motor Company. We understand that several oil companies now have national distribution of suitable e. p. l., or will shortly have such lubricants available. These lubricants should be drained and replaced at least once each year, or sooner, if the operation permits, and it is also advisable to flush the housing thoroughly before inserting the new lubricant.

●

Truck Tire "Calculator" Does the Job

To the Editor: Some time ago you published an article in which various recommendations were made for choosing different-sized tires for 1½-ton trucks. We should like to get a few extra copies of this article and chart; also any other information that would aid us in the selection of truck tires for 1½-ton trucks of popular make. We are particularly interested in the sizing of tires for the loads carried.—J. L. H., Detroit, Mich.

Answer: Your request could not have come in at a more opportune time. We happen to have not only a few extra copies of the article in question, but also have just received a sample of a new "Truck Tire Calculator," which is a handy pocket slide-rule, put out, free, by the B. F. Goodrich Rubber Company. We are sending you a copy of the article and also one of the slide-rules, which you will observe, is as easy to work as the zipper on your brief-case.

(EDITOR'S NOTE: *Anyone interested in choosing the correct size of tire for 1½-ton trucks will find this "slide-rule" a very handy thing to have around; that is, if you can keep it where no one will steal it from you. This "calculator" is provided for the purpose of quickly determining the right size tires necessary to deliver 100% normal service expectancy, which means that if you are carrying a certain load, you will need a certain size tire in order to get 100% of the tire mileage built into the tire.*

The Goodrich
TIRE CALCULATOR
For 1½ Ton Trucks
157" Wheel Base
This calculator is provided for the purpose of quickly determining the right size tires necessary to deliver 100% normal service expectancy.
Reduce your truck operating costs by correct sizing of tires for load carried.
100%
HOW TO USE THE
TIRE CALCULATOR

One side of the Slide-rule is for 131" wheelbase trucks; the other for 157" wheelbase. All you do is find the load you wish to carry, work the slide, and presto! you see at a glance which size tire will provide the best service, and also how much service to expect from the size tire you are now using.

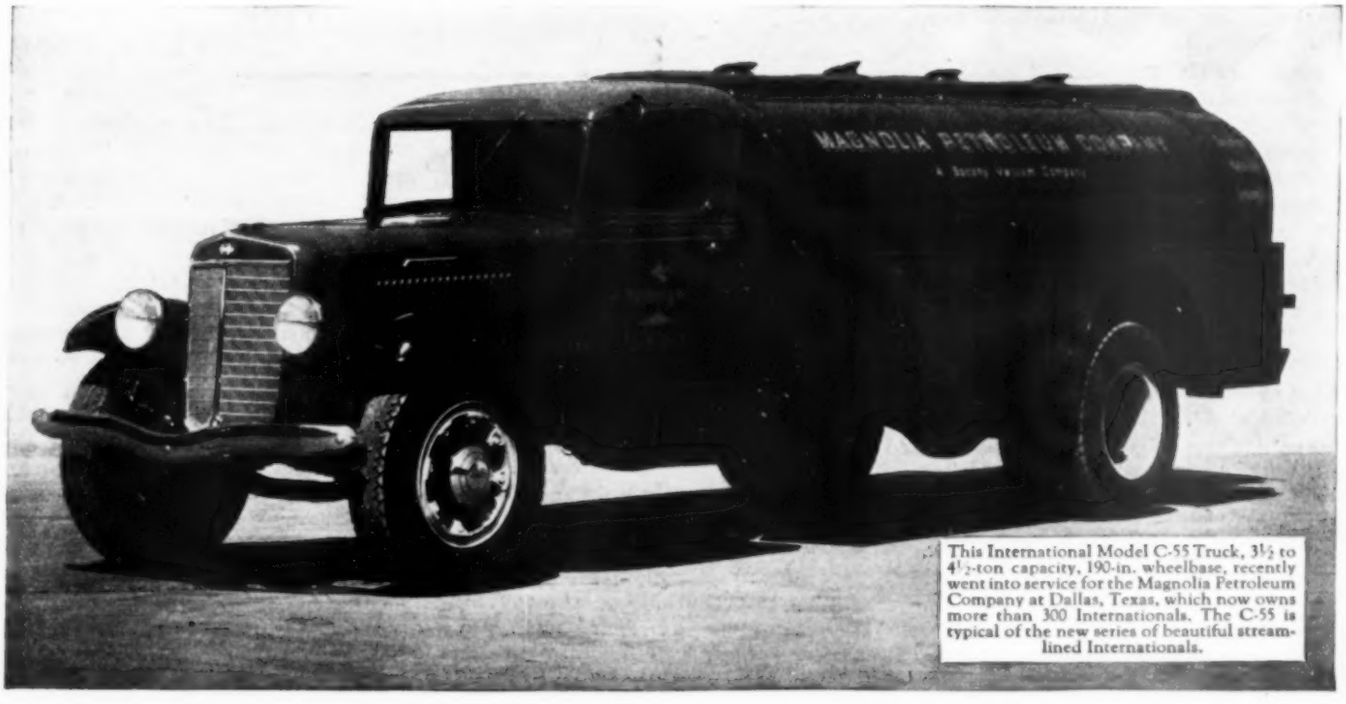
Should other fleet operators desire one of these "Calculators" just write to the Editor of this publication, and we'll see that you are supplied free, gratis and for nothing.—H. C. F.)

INTERNATIONAL TRUCKS

Have Long Given Users the Benefits of QUALITY Features

● Make any comparison you like as to quality in motor trucks—then you will appreciate the engineering skill and the manufacturing precision inherent in International Trucks. Many features which are now being spotlighted by others as something new have long been standard with International. Replaceable cylinders; exhaust-valve seat inserts; precision-type, steel-backed, removable-shell bearings; replaceable valve-stem guides; full-pressure lubrication; self-aligning, self-adjusting propeller shaft center bearing; roller-bearing, anti-friction-type universal joints; and full-floating rear axles are refinements well known to International users. International can give you all that you expect in a truck, and more, because Internationals are all truck from the ground up. Call on the nearest branch or dealer for complete information. Sizes range from ½-ton to 10-ton.

INTERNATIONAL HARVESTER COMPANY
606 S. Michigan Ave. OF AMERICA (Incorporated) Chicago, Illinois



This International Model C-55 Truck, 3½ to 4½-ton capacity, 190-in. wheelbase, recently went into service for the Magnolia Petroleum Company at Dallas, Texas, which now owns more than 300 Internationals. The C-55 is typical of the new series of beautiful streamlined Internationals.

THE LATEST *in* REFRIGERATED BODIES *by* G. E.

THE 1935 Model G-E Refrigerated Truck Body, embodying all of the newest construction features, was announced recently. The body and its electric refrigerating equipment are of coordinated design, embracing the same engineering principles incorporated in the G-E Monitor-Top refrigerator, it is claimed.

The features of this year's newly introduced model include: all-steel, welded body construction; specially designed power take-off drive with over-running clutch embodied in driving pulley; Thermocraft insulation; heat-exchanger which eliminates frosting of the suction line and affords maximum evaporator efficiency; and unique coil-free interior of refrigerated compartment.

The 1935 model body, available in three sizes, is intended for routes which have a running time of 40 per cent or more. The cruising radius is unlimited, allowing the truck to operate twenty-four hours a day if desirable, because the electric system is said to provide full refrigerating capacity while on the road. It is not necessary to spend a certain portion of the day operating from central station power. The operating cost is low—averaging approximately 5 kilowatt hours for a night lay-over, and less than one additional gallon of gasoline a day on normal 75 to 100 mile routes, it is claimed.

The outer shell of the body is of sheet steel. All seams and bracing bonds are electrically welded, and the seal is made around the door frames by means of a durable rubber gasket. The result is an air-sealed compartment for the insulation, thus eliminating the possibility of moisture infiltration. The door casings and load-compartment supports are made of kiln-dried oak.

The power take-off drive is designed for long life under continuous duty. Through a standard S. A. E. opening in the transmission case, power is transferred to the take-off and then to the driving pulley through the drive shaft which is fitted with a double ball-bearing journal box and two needle-bearing universal joints.

An over-running clutch is embodied in the driving pulley. Through this arrangement the inertia of the generator armature is utilized to disconnect the auxiliary load from the truck transmission when gears are being shifted. This allows the gearing to slow down in a normal manner and prevents the interference that would be caused if the refrigerating machinery remained connected during the gear-shifting operation. The pulley is connected to a generator, located in the machinery compartment at the front of the body by a multiple V-belt, which assures long life and positive drive. A metal housing protects the belt from mud and dust.

The generator is a compact unit which provides alternating-current power to the motor-driven condensing unit during road operation. A plug-in receptable on the control case provides an easy means of taking power from the regular garage circuit during storage and precooling.

The advantages of electric drive are given briefly as follows: It provides a means of automatic control. Through the motor-overload protection it provides against overloading and against creating excessive pressure during "pull-down" on a hot body. It provides a cushion between the compressor and the somewhat erratic variation of truck-engine speed.

The condensing unit consists of a compressor, condenser, pressure-type temperature control, refrigerant tank, and induction motor all compactly mounted on a common base and located adjacent to the generator in the machinery compartment. The refrigerant used is Freon (F-12).

The heat exchanger is simply a section of the suction line which carries the spent refrigerant from the cooling coils back to the compressor. The section is made large enough to permit its carrying the liquid line through which the liquefied refrigerant flows from the condenser to the expansion valve.

By means of this arrangement, the low temperature gas in the suction line is used to cool the warm refrigerant in the liquid line, thereby accomplishing a gain of about 10 per cent in thermal efficiency and eliminating frosting of the suction line.

The heat exchanger and expansion valves are neatly arranged in the forward bulkhead. Easy access to them is gained through removable covers.

The cooling coils are firmly soldered to the outer surface of the refrigerated compartment. This arrangement has several important advantages.

The interior of the load compartment is left entirely free from obstructions, thus preserving valuable load space and facilitating cleaning. There are no nooks or

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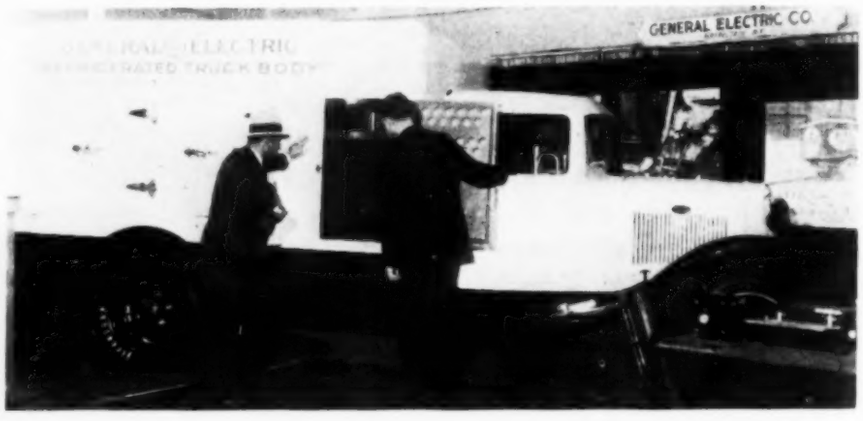


HERE is the new G. E. Refrigerated Truck Body just as you would have seen it at the recent Dairy Industries Exposition in Cleveland. Believing that it will soon be time to think about truck-body refrigeration again, we are presenting this description, which is the manufacturer's of course. Three standard body sizes are available, which will fit on popular 1½-ton truck chasses. If you'd like G. E. to send you their illustrated booklet giving a full description of their line of refrigerated bodies, just drop a line to the Editor.

Buy a Blowpipe

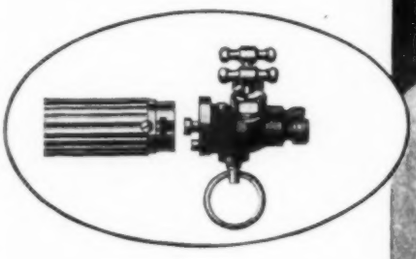
THAT WILL GROW WITH YOUR SHOP

Above—*Ten seconds is all you need to change blowpipes.*

* * *

Left—*The four new-type Prest-O-Weld Handle Assemblies: C-105, W-105, CW-105 and W-106.*

Below—*The Prest-O-Weld Detachable Valve Body is supplied on all new-type Prest-O-Weld Blowpipes.*



THE most economical way to build up a complete set of welding and cutting blowpipes is to start with one new-type Prest-O-Weld Blowpipe equipped with the Prest-O-Weld Detachable Valve Body. This body fits the handles of two sizes of welding blowpipes, a cutting blowpipe, and a cutting attachment. When you want to add one of these to your original equipment, instead of buying the complete blowpipe you buy only the handle, which costs much less than a complete blowpipe. All the handles are interchangeable and can be snapped on to the Detachable Valve Body in ten seconds without disconnecting the hose or using a wrench.

The time- and money-saving features of this remarkable device recommend it to every welder or shop owner interested in doing fast work with the lowest possible investment in apparatus.

Ask your jobber to demonstrate the Prest-O-Weld Detachable Valve Body for you today.

★ The Prest-O-Weld Type W-106 Welding Blowpipe with the Prest-O-Weld Detachable Valve Body provides automobile repair and sheet metal production shops with a strong, handy blowpipe for light welding, bronze-welding and soldering. This blowpipe will adequately perform all the light welding jobs ordinarily encountered in shops of this kind.

Prest-O-Weld Type W-106 Welding Blowpipe complete with five tips, lighter and wrench $21.00

Prest-O-Weld Type W-106 Handle Assembly, with tips, lighter and wrench (Same as above but not including the detachable valve body)..... $14.00

Prices slightly higher west of the Rocky Mountains.

THE LINDE AIR PRODUCTS COMPANY

Unit of Union Carbide and Carbon Corporation

UCC

IN CANADA, DOMINION OXYGEN COMPANY, LTD., TORONTO

Sales Offices:

Atlanta	Dallas	Memphis	Portland, Ore.
Baltimore	Denver	Milwaukee	St. Louis
Birmingham	Detroit	Minneapolis	Salt Lake City
Boston	El Paso	New Orleans	San Francisco
Buffalo	Houston	New York	Seattle
Butte	Indianapolis	Philadelphia	Spokane
Chicago	Kansas City	Phoenix	Tulsa
Cleveland	Los Angeles	Pittsburgh	

NRA CODE

LINDE OXYGEN · PREST-O-LITE ACETYLENE · OXWELD APPARATUS AND SUPPLIES · UNION CARBIDE

• NEWS of the TRUCK INDUSTRY •

New Truck and Bus Axles

NEW full-floating integral type axles for truck, bus and industrial installations, are announced by Salisbury Axle Co., division of Spicer Mfg. Corp., Toledo, Ohio. In designing these axles, attention has been paid to ease of servicing. The floating wheel-end permits servicing of shafts without disturbing the load. It is also possible to service complete differentials by removal through the back opening of the axle. A new bulletin, No. 101, may be secured by writing to Spicer Manufacturing Corp., Toledo, Ohio. You'll mention FLEET OWNER, won't you?

•

Streamlines by Stewart

A VERY attractive, fully streamlined panel delivery job has recently been built for and is now in operation by the Canavan-Leggett Brewery at Niagara Falls, N. Y. It is used for home delivery service of case beer. Extreme beauty and modern lines are combined in this unit, built by The Stewart Motor Company, Buffalo, N. Y. The loading space is 8 feet long, 46 inches wide and 50 inches high. Stewart will send you a picture, if you'd like to see it.

•

"Takes It Away to the Mill"

WHETHER it's an "old pine tree" or 85-foot "sticks" of Oregon spruce, this Ford V-8 tractor does faithful duty for Davidson Brothers, lumbermen, of Vaughn, Washington.

The job illustrated is that of hauling seven 60-foot pilings and one 85-foot piling, for a distance of eight miles, over roads hewn through the wilderness. We have pictures of other makes of trucks in similar service; this one happened to find its way into print. And the manufacturer assures us that they "can take it."

SKF Opens Minneapolis Branch

THE opening of a new branch store at 407 South 4th St., Minneapolis, Minn., is announced by SKF Industries, Inc. It is in charge of Mr. A. Kishkunas. The new office carries a complete stock of SKF ball and roller bearings, pillow blocks and hangers, to meet the rapidly increasing demand for an over-night bearing service.

•

One of Scott Brothers' Latest

HERE'S the latest addition to the fleet of trailers operated by Scott Brothers, Philadelphia, Pa. On it is mounted a new type of light-weight, corrugated pressed-steel body, especially developed for city service—pick-up and delivery. It has double

collapsible gates and a 20-inch tailgate; also double side-doors. While the picture illustrates the body with tarpaulin equipment, some of these units have been built with a corrugated pressed-steel roof, which does not materially add to the weight, and with which side pillars or stakes are unnecessary. The Trailer Company of America, Cincinnati, Ohio, builds these bodies.

•

Orders Two More Deisel Engines

THE Hancock Truck Lines, Evansville, Ind., who have been operating two Cummins Diesel-equipped trucks during the past several months, have recently placed an order for two additional Cummins engines—one 4-cylinder and one 6-cylinder. The 4-cylinder job will be installed in an International truck; the 6-cylinder will go into a Federal truck, according to A. E. LeBlanc, sales manager for Cummins.

First Diesel Filling Station?

THE distinction of being the first filling station in the United States to dispense fuel-oil to Diesel-operated trucks is claimed by the Metropolitan Service Station in Los Angeles, according to *Motor*. One pump of 30 gallons per minute capacity serves 10 fleets totalling 120 trucks in the Los Angeles district. The oil retails at 5½c per gallon. There are approximately 200 Diesel-engined trucks in Southern California and about 600 in the entire state, the news item goes on to say.

•

Hold N. Y. Safety Conference

A PROGRAM running the range of hazards on land, sea and air was covered at the Sixth Annual Greater New York Safety Conference, held March 5, 6 and 7th at the Hotel Pennsylvania. At the Commercial Vehicle Session, papers were read covering "Brakes and Skids," "Right of Way vs. Right to Live," and "Minor Repairs Which Prevent Major Accidents." At another session, papers were presented covering "Selection and Training of Drivers" and kindred operating subjects. In an early issue we'll try to present some of these papers in article form.

•

Bendix Enters "Safety Lane" Field

THE wave of enthusiasm for compulsory inspection of motor vehicles has resulted in the Bendix Products Corporation's installation of a model inspection lane in their factory at South Bend, Ind. This model "safety lane" is now in use and civic executives and safety officials from all parts of the country are cordially invited to visit the factory to inspect it. The enterprise is called "Civic Safety Clinic" and is the result of four years of study in the field. The special equipment developed will take care of all types of automobiles, it is pointed out by Bendix officials.

•

This Unit Saves $25 per Day

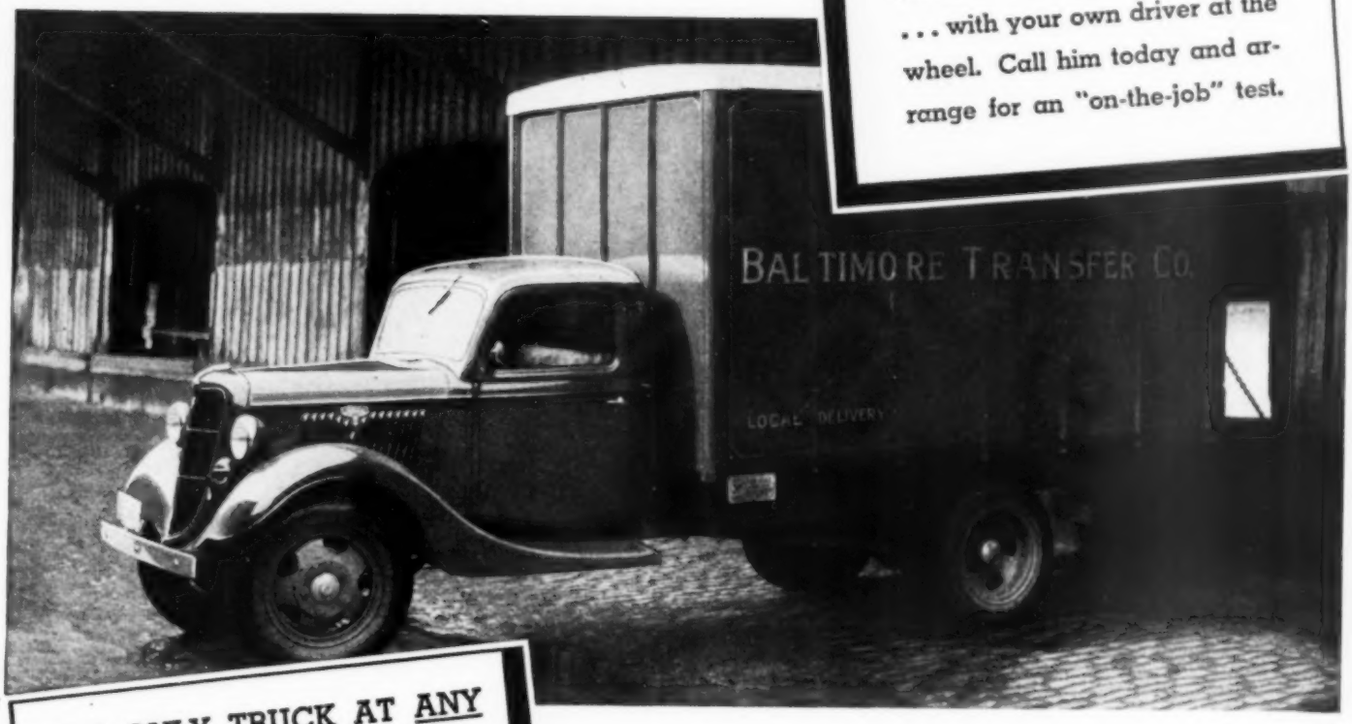
WITH the approach of warmer weather, ice-cream manufacturers will no doubt be interested in this mechanically-refrigerated body, said to have saved $25 per day for the Dixie Dairies of Macon, Ga., since they put it into operation recently. The job is one of the latest announced by G-E and it mounts conveniently on any light-truck chassis. If you would like to hear more about

these substantial savings, we'll be glad to have G-E (General Electric, to you) send you one of their handsome data books covering mechanically-refrigerated bodies. Some call them catalogs, but they're *more* than that, in our opinion. Ask us to have a copy sent, if interested. We delight in serving, you know.

An Invitation to Every FLEET OWNER Who Wants to Reduce His Hauling Costs

FORD V-8 TRUCK

Your Ford dealer invites you to try his New 1935 Ford V-8 demonstrator truck with your own loads . . . on your own routes . . . with your own driver at the wheel. Call him today and arrange for an "on-the-job" test.



THE ONLY TRUCK AT ANY PRICE THAT GIVES YOU ALL THESE FEATURES

NEW LOAD DISTRIBUTION for better braking and more uniform tire and brake wear. . . . NEW DRIVER COMFORT, driver's compartment completely lined, triple ventilation system, instruments grouped directly in front of driver. . . . NEW QUICK-STOPPING, RIB-COOLED BRAKES, longer life between adjustments, will not "bell-mouth" or "fade." . . . NEW CLUTCH, lower pedal pressure at idling speed, plate pressure increases by centrifugal force as engine speed increases, minimizing slippage. . . . NEW CRANKCASE VENTILATION reduces corrosion and oil dilution. . . . NEW COOLING EFFICIENCY, larger radiator, larger water pump impellers. . . . 80-HORSEPOWER V-8 TRUCK ENGINE uses no more fuel than a "four." . . . FULL-FLOATING REAR AXLE with straddle-mounted pinion. . . . FULL TORQUE-TUBE DRIVE permits free-shackling of semi-elliptic rear springs. . . . DEEP, RUGGED FRAME with no "kick-up." . . . LOW-COST ENGINE EXCHANGE PLAN saves time, saves money. . . . SKIRTED FENDERS in colors that match the hood and cab. . . . BAKED ENAMEL FINISH.

THERE's one SURE way to find out whether a truck will do the job you expect of it. That's by testing it with your own loads, over your own routes, with your own driver at the wheel. Ford dealers have such complete confidence in V-8 Performance and V-8 Economy that they are ready and willing to place a 1935 Ford V-8 Truck at the disposal of any responsible fleet owner who wants to save money on his hauling costs.

Borrow your Ford dealer's demonstrator truck. Use it in place of one of your present units. Make your own tests of V-8 Performance and V-8 Economy. Consider the Ford Low-cost Engine Exchange Plan and other exchange privileges that assure welcome savings in maintenance costs. See how Ford has built into this new truck ALL the features needed for BOTH hauling and delivery service. Then look at the price! You will be convinced once and for all that the 1935 Ford V-8 Truck is now more than ever AMERICA'S GREAT TRUCK VALUE!

THE 1935 FORD V-8 TRUCK

READER SAY-SO

(Picked at Random from The Editor's Mail-Bag)

A Highway Engineer Speaks

"TO the Editor: I wish to express my appreciation of your publication FLEET OWNER. While I have never given voice to it before, your magazine has been a source of many interesting articles and a means to the more efficient operation of our trucks. Located the way we are here, out of touch with the more modern methods of repairing and maintenance of automotive equipment, your magazine has sure helped more than you can possibly know. I want to thank you for FLEET OWNER. Long may it continue to be a source of information to us in the isolated districts, as well as in the more populous centers."—*Guy H. Bryner, Engr.-in-Charge, 5th Division, County of Erie Highway Department, East Concord, N. Y.*

●

"Chock Full of Information"

"DEAR Editor: Just a word of appreciation for the many interesting and informative articles which we find in your publication. It is 'chock full' of them. We operate a fleet of 15 cars."—*Will Temple, Asst. Mgr., Nashville Car Rental Co., Nashville, Tenn.*

●

Likes the "Fleet Analysis"

"DEAR Mr. Fischer: In the November issue of FLEET OWNER there is an interesting article entitled 'Analyzing a Typical Fleet Operation' by E. J. Gribbons. This is very interesting. Is there any means of securing this entire series of articles in one continuous form, i.e., in a typewritten or mimeographed volume? If so, I would like to obtain a copy."—*John M. Stoudt, Engineer-Accountant, City of Cincinnati, Cincinnati, Ohio.*

(EDITOR'S NOTE: Perhaps you can obtain a complete copy of this thesis from the author. We'd suggest that you write him as follows: Mr. E. J. Gribbons, 12 Englewood Ave., Worcester, Mass.)

"A Great Factor"

"TO the Editor: I want you to know that I think your magazine FLEET OWNER is a great factor in unifying and making uniform the motor industry in general and the transportation field in particular."—*Edwin Allen, Mgr., Asheville Transfer & Storage Co., Asheville, N. C.*

●

Try the Oil Companies

"DEAR Editor: Where is it possible for me to secure some real information on lubricating oils? I am interested in the best grade or make of oil put out by any company. Also, what are the possibilities of oil reclaiming? I sure like your magazine, FLEET OWNER, and get a lot of valuable information from it."—*Kenneth Wilson, Foreman, Engleman Development Co., Elsa, Tex., operating a fleet of 27 trucks, 10 field cars, 10 excursion cars and 19 tractors.*

(EDITOR'S NOTE: Any of the leading oil companies will provide you with almost any information on oils that you may desire. The possibilities of oil reclaiming are excellent, many fleet operators finding this practice to bring real savings.—H. C. F.)

●

From a Regular Reader

"TO the Editor: We would like to get information as to where we may procure copies of the forms shown at the bottom of page 26 of the October issue of FLEET OWNER. Your publication is read regularly by our Master Mechanic and other officials, who find many articles of interest. We operate a fleet of 116 trucks and 9 cars."—*Ralph N. Wellinghorn, Cost Accountant, Hayes Transfer & Storage Co., Mattoon, Ill.*

(EDITOR'S NOTE: Sample copies of the forms mentioned may be obtained by writing to Mr. W. C. Bray, c/o B. F. Goodrich Rubber Company, Akron, Ohio.)

Short and Sweet

"DEAR Editor: I read your FLEET OWNER every month and find in it much valuable information to help me with my fleet maintenance."—*A. De Mers, Garage Foreman, Cudahy Packing Co., Sioux City, Iowa.*

●

"Think Very Highly, etc."

"DEAR Mr. Fischer: We are readers of your publication FLEET OWNER, and think very highly of it. We would appreciate getting literature on preventive maintenance, as we operate fleets of taxicabs at Lansing, Kalamazoo and Battle Creek, consisting of Ford V-8s, Plymouths and Chevrolets."—*Lewis Manthey, Maintenance Foreman, Michigan Cab Company, Kalamazoo, Mich.*

●

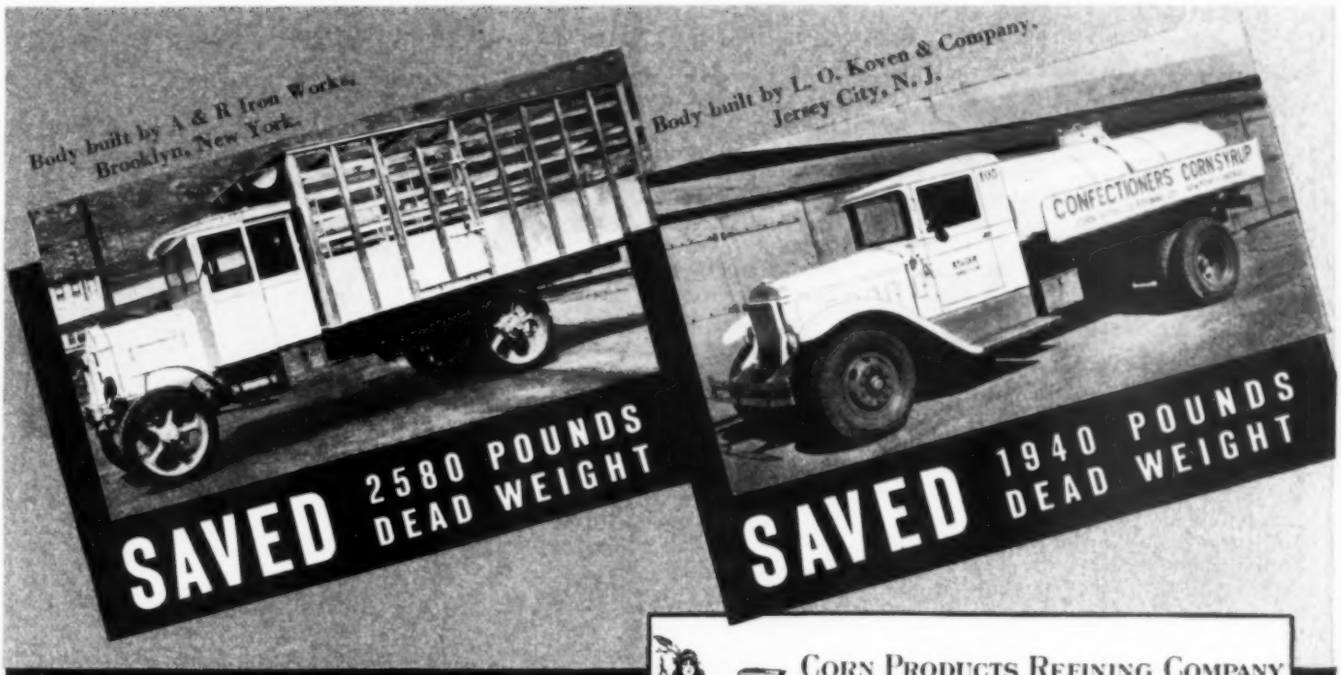
Liked the Cost-Articles

"DEAR Editor: I have been reading with very much interest your articles on simplified cost-keeping in the September, October, November and December issues of FLEET OWNER. I would greatly appreciate your sending me sample sets of the forms and record books mentioned; also any other data you may care to recommend. We operate a fleet of trucks as follows: twenty 5-ton dump trucks; nine 1½-2-ton trucks; 3 tractors; 3 concrete mixers; 5 passenger cars and numerous other road building equipment."—*J. C. Tomasulo, Chief Clerk, Union County Bureau of Roads, Elizabeth, N. J.*

●

Who Else Wants One?

"TO the Editor: Please send me a copy of the book entitled 'Modern Methods of Rear Axle Gear Installation.' I get lots of good out of your publication FLEET OWNER."—*C. G. Norger, C. C. Taft Company, Des Moines, Iowa.*


Body built by A & R Iron Works, Brooklyn, New York.
SAVED 2580 POUNDS DEAD WEIGHT
Body built by L. O. Koven & Company, Jersey City, N. J.
CONFECTIONERS CORN SYRUP
SAVED 1940 POUNDS DEAD WEIGHT

SAVED AVERAGE OF $900 EACH TRUCK, EACH YEAR

CORN PRODUCTS REFINING COMPANY

WHITEHALL BUILDING
17 BATTERY PLACE
NEW YORK

AUTOMOBILE AND WAREHOUSE DEPARTMENT

August 20th, 1934.

Aluminum Company of America,
230 Park Avenue,
New York City.

Gentlemen:-

The strength and lightness of aluminum bodies appeals to us particularly because our products are heavy and the weight limits of the law are low.

We have used your material in the fabrication of not only our rack and panel bodies, but in our tank trucks as well. We find the maintenance cost negligible and the extra tonnage carried pays the additional cost the first year of their operation. This justifies the investment. Added features in their maintenance are the freedom from rust - and the saving on paint jobs.

Thanking you for the help which you have extended us, and also the body builders, during the construction of these jobs, we are

Yours very truly,
CORN PRODUCTS REFINING COMPANY.
R. R. Sherry
Automobile Department.

RRS:FS

● Savings going and coming! That's what these two different types of Aluminum Bodies have accomplished for the Corn Products Refining Company. Going, the dead weight saved increased the pay load and reduced the number of trips. Coming, there's less weight to carry back, less wear and tear, less maintenance costs. Both ways, this company saves an average of $900.00 a year on each Aluminum Body working to capacity.

On the rack and panel body of Alcoa Aluminum the dead weight saving of 2580 lbs. represents a percentage increase in pay load of 22.69. The truck tank which made a dead weight saving of 1940 lbs. has a capacity of 1,100 gallons. And Alcoa Aluminum brought this plus advantage — Corn Syrup, or any food product can be handled in direct contact with Alcoa Aluminum. There is no discoloration or contamination. The tank is easily cleaned.

Doesn't this convincing evidence suggest that you send for our book, Alcoa Aluminum for Truck Bodies. Address ALUMINUM COMPANY OF AMERICA, 1861 Gulf Building, Pittsburgh, Pa.

MAINTENANCE COSTS LOW...EXTRA TONNAGE HIGH...ADDITIONAL COST PAID IN A SINGLE YEAR....

NRA

ALCOA

ALCOA · ALUMINUM

NEW INDIANA IN LOW-PRICED MARKET

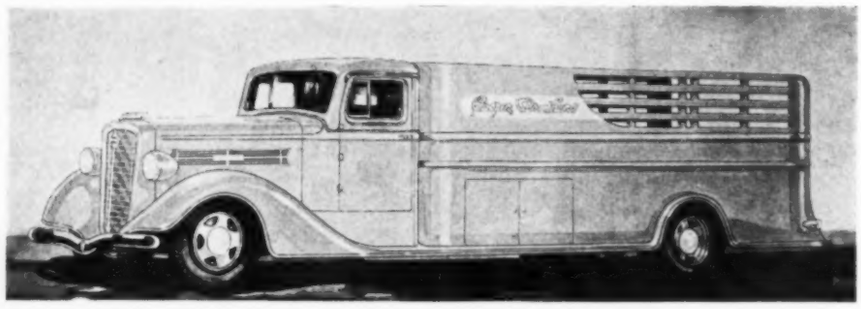
A NEW streamlined Indiana truck, priced at $695, is announced by The White Motor Company, Cleveland, Ohio, builders of White and Indiana trucks and motor-coaches. Volume delivery of the first of 10,000 units to be built this year was scheduled to start March 15th.

The new model, of 11,000 pounds gross capacity, marks Indiana's entry into the lowest price field. It will be merchandised by White branches and dealers. The market for it is conservatively estimated at 750,000 trucks, including a tremendous farm market.

Designated as the Model 86, the new truck is designed to meet every requirement of the 1½ to 2-ton field, according to the makers. The engine is a six-cylinder, L-head type with a piston displacement of 263 cubic inches, said to be unusually large for a truck of its price and capacity. The crankshaft, 2½ inches in diameter, is mounted in seven main bearings. Aluminum pistons with four rings are used. Full force lubrication is carried to main bearings, connecting rod bearings and timing gears.

In view of the large engine, a correspondingly heavier rear axle, of full floating design, is used. A heavy-duty, 11-inch clutch and a four-speed transmission with heat-treated gears are standard.

Hydraulic 4-wheel brakes are an important feature of the new truck. A total brake lining area of 254 inches is provided for. The frame of sturdy



pressed steel channel 7⅞ x 2¾ x 3/16 inches, with five cross-members, is in keeping with the other specifications of the truck.

The standard wheelbase is 131 inches, with optional wheelbase lengths of 143", 155" and 167" available at extra cost.

Modern streamline appearance is a striking feature of the new chassis, achieved by the use of deep-skirted fenders, cadmium-plated radiator grille and louvres and a sedan-type cab. The cab, which is at additional cost, is roomy, well-ventilated and handsome in appearance.

Complete details and specifications will not fit into the customary space in this publication devoted to new models. However, The White Company, Cleveland, Ohio, will be glad to furnish interesting literature on request. And they'll want to know where you saw their announcement, so you'll mention FLEET OWNER, won't you?

•

AUSTIN-WESTERN OFFERS DUMP TRAILERS

A LINE of trail cars (in 8 to 25-ton sizes) for handling coal, ore, rock, dirt or other materials of heavy weight and bulk has been announced by the Austin-Western Road Machinery Company, Aurora, Illinois.

Engineered for maximum pay-load operation, these cars (on rubber tires) have features similar to those employed by recognized builders of railroad dump cars.

Equipped with bottom or side dump doors that operate by air, hydraulic or mechanical (manual) controls, A-W. trail cars come in three standard body designs, including special, built-to-order constructions.

According to the manufacturers, these trail cars will haul more than double the load that a truck-tractor can carry on its own chassis.

Features include a full universal, gravity-cushioned fifth wheel for rough surface travel without strain or distortion; generous ground clearance for easy dumping; low overall height for quick, convenient loading; dumping controlled by truck driver from cab; short turning radius with ample clearance; semi-elliptic springs, mounted directly under center sills; automatic safety dumping devices, etc. Illustrated booklet describes all models.

"Dual Ratio" Axle for Ford Cars

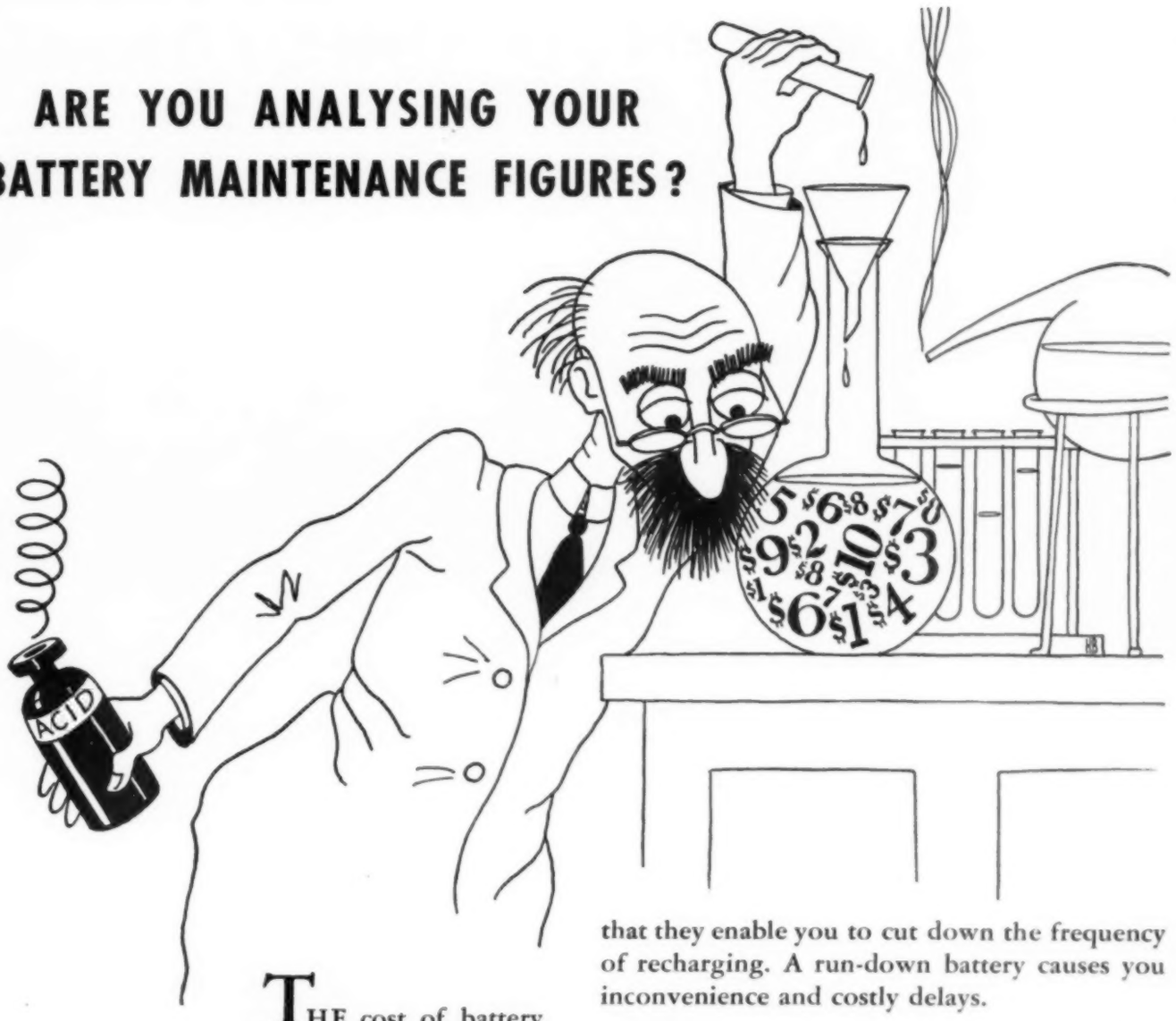
A NEW "Dual Ratio" axle attachment for Ford passenger cars has recently been announced by Columbia Axle Company, Cleveland, Ohio. This device makes instantly available an added gear ratio of 2.94 to 1, in addition to the standard ratio of 4.11 to 1. The overdrive is accomplished through the use of planetary gears, built into the unit, which replaces the right half of the standard car axle. When using this ratio, all parts from the fan to the rear axle are slowed down 28½ per cent and the car travels 40 per cent farther on a given number of engine revolutions. A selector switch on the dash permits changing ratios at will.

•

New Booklet on Synthetic Rubber

UNDER the title of "A Story of Man-Made Rubber," the first popular description of DuPrene is given in a small illustrated booklet recently issued by the Rubber Chemicals Division, E. I. du Pont de Nemours & Co., Wilmington, Del. Of particular interest is the explanation of how DuPrene is synthesized from natural raw materials, such as coal and limestone. Copies of this book are now ready for distribution and will be sent free on request.

ARE YOU ANALYSING YOUR BATTERY MAINTENANCE FIGURES?



THE cost of battery power in your trucks include several important factors. First, of course, is the initial cost of battery replacement. Exides keep this figure low because they are reasonably priced, and because their long life increases the period between replacements.

The second factor is maintenance—the routine of flushing the battery, cleaning and greasing the terminals, and recharging. Exides respond so well to this systematic care, and retain their power to start for so long a period that they enable you to cut down the frequency of recharging. A run-down battery causes you inconvenience and costly delays.

Analyse your maintenance figures, and see what kind of battery service you are paying for. Standardize on Exide—establish a simple maintenance routine—and you'll put an end to excessive battery costs.

Exide Engineering Service can help lower your battery maintenance cost. Conducted by trained and experienced battery engineers, it is available to fleet operators free of charge.

THE ELECTRIC STORAGE BATTERY CO., Philadelphia
The World's Largest Manufacturers of Storage Batteries for Every Purpose
Exide Batteries of Canada, Limited, Toronto

EXIDES FOR DIESEL STARTING

Specially constructed Exides of three different types have been developed for Diesel starting. Packing maximum power into minimum weight and space, these special Exides meet the low-temperature starting requirements of all high-speed Diesels.

Exide

NRA CODE

BATTERIES

FOR EVERY TYPE TRUCK

WHITE'S NEW TRUCK LINES FOR 1935

FOLLOWING an increase of 186 per cent in White truck registrations in 1934 over 1933, said to be the largest increase in the truck industry, The White Motor Company, Cleveland, Ohio, announces a complete line of "ultra-modern" trucks and buses for 1935.

Greater performance and improved economy are the keynote features of the new Whites, with modern load distribution, hydraulic and air brakes and ease of handling in traffic, listed as important advantages, the manufacturers point out.

Greater emphasis has been placed by the makers on streamline style features, particularly in the lighter models, in line with the present day demand for beauty of appearance.

The new improved models augment the 700 Series of Whites, first introduced at the beginning of 1934, with the models 701 and 702. The success of these models in the $1000 field was largely responsible for White's impressive registration gains last year, it is declared.

The 1935 models of the 700 Series are claimed to meet every gross weight requirement from 8,000 pounds to 60,000, including tractor and six-wheel units.

The models 730 and 731 (illustrated), in the 26,000 to 30,000 pounds gross weight classification, are the industry's only trucks with 12-cylinder "pancake" engines. This engine is the means of achieving "underslung power," by virtue of which the cab is moved to the extreme front of the truck, providing maximum payload space on every wheelbase.

White also utilizes the "underslung power" principle in its 32 and 44 passenger City Coaches, revolutionary type of buses for city transit service. White's second 1935 innovation in the bus field is Hyway Air stream coaches for inter-city service.

A tremendous replacement market is indicated for 1935 by the fact that

(*Please turn to page* 60)

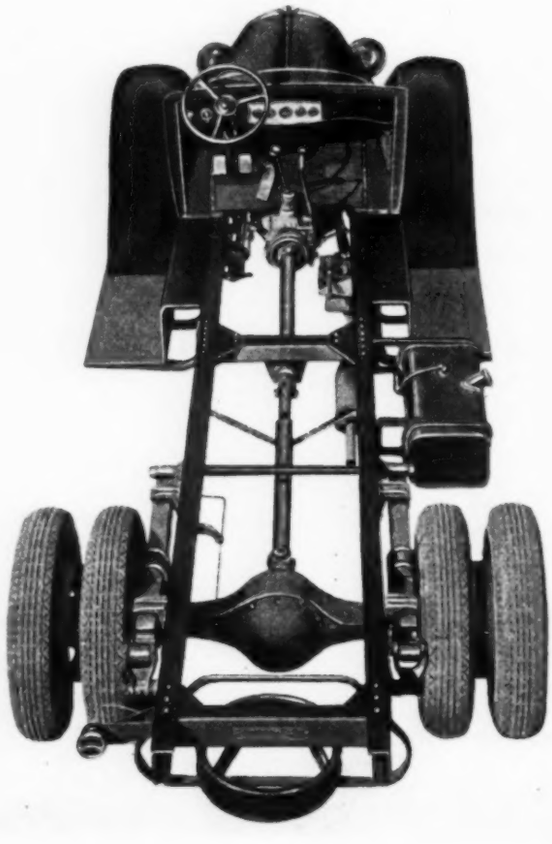
STEWART'S NEW 3-TONNER IS READY

PRODUCTION of a new 3-ton chassis known as Model 49H is announced by Stewart Motor Corporation, Buffalo, N. Y. The chassis is furnished in wheelbases of 145, 160, 176, 190 and 220 inches, thus making it suitable for bodies from 8 to 16 feet in length. Standard chassis weight is 5,325 lbs.

The engine is a 6-cylinder L-head job, 3¾ x 4¼ inches, featuring Ricardo head, molybdenum alloy block and manifolds, full-pressure oiling system to all parts including piston-pins, steel valve inserts, full-length water-jackets, 7-bearing crankshaft and timing gears. Other engine features include Stromberg down-draft carburetor with air-cleaner and silencer.

A single-plate 12-inch clutch passes the power to a 5-speed (overdrive) transmission, having helical gears on third and overdrive speeds. Ratios are as follows: First, 6.1:1; Second, 3.48:1; Third, 2.04:1; Fourth is direct; Overdrive is .77:1; and Reverse is 4.85:1. A two-speed auxiliary transmission is optional at extra cost on all wheelbase jobs over 145 inches.

The drive-shaft is a 3-inch tubular type, equipped with the latest type of Spicer roller-bearing universal joints. Rear axle is a full-floating job, with spiral-bevel gears; pinion is straddle-mounted. The gear-ratio is 7.16:1, standard. Timken roller bearings are used throughout both front and rear axles. The former is of the I-beam type. A roller-mounted, Ross cam-and-lever steering gear is standard equipment, with a 20-inch wheel.



Service brakes are of the 4-wheel hydraulic type, operated by a Bendix power booster. Hand brake is located at the rear of the transmission. Front springs are 38½ inches long and 2¼ inches wide. Rear springs are 50 inches long and 3 inches wide, with helper springs being standard.

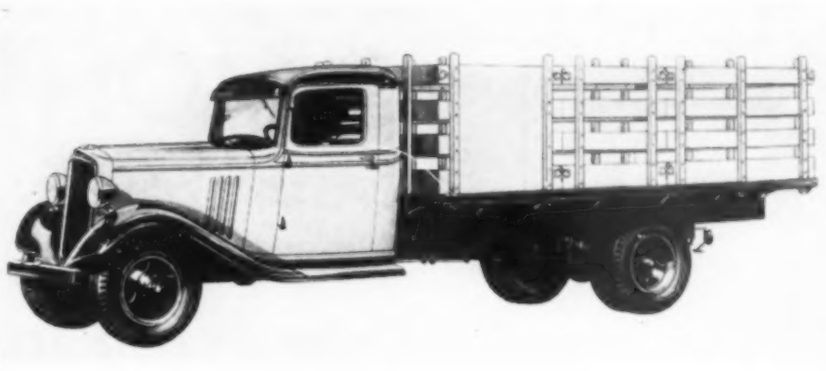
Steel spoke wheels are furnished, equipped with demountable rims. Standard equipment tires are 7.00 x 20 balloons, with duals at rear. Instrument board is equipped with ammeter, oil gauge, lighting and ignition switches, gasoline gauge, temperature indicator and choke. It is indirectly lighted. Cowl lights and cowl strips are standard.

New literature recently announced, illustrates and describes the new Stewart Model 49H much more thoroughly than we can do it here.

CHEVROLET OFFERS IMPROVED 1935 MODELS

IMPROVED models having more power, increased braking ability, and numerous improvements in engine and chassis are offered by the Chevrolet Motor Company, in its line of commercial vehicles for 1935.

In addition to the ½-ton trucks of 112-inch wheelbase and the 1½-ton trucks of either 131-inch or 157-inch wheelbase, Chevrolet this year features a new unit, the Standard Sedan Delivery, designed for the fast dispatch of light merchandise. A wide variety of factory-built bodies, designed to meet the special requirements of different industries and trades, is available.



The Chevrolet models for 1935 retain the general characteristics of the previous line in layout and design; mechanically, however, they incorporate many added features, notably in the engines, which include improved spark-advance control, better crankshaft counterweighting and harmonic balancer, selective balancing of rotating parts, high pressure oil-stream lubrication to connecting-rod bearings, increased oil-pump capacity, electro-plated pistons, greater water pump capacity, and improved cylinder-head temperature distribution.

In both the ½-ton and 1½-ton models, brakes and braking have been improved to give lighter pedal pressure, higher coefficient of friction in the lining, limited articulation of reverse shoes, and increased life of reverse linings.

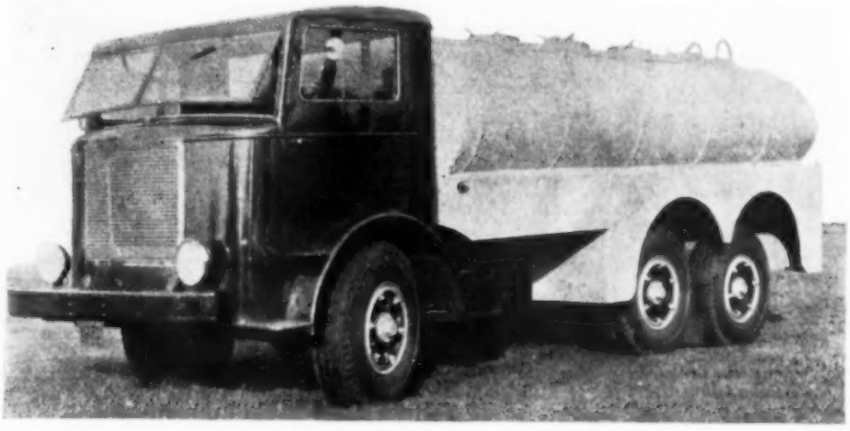
In addition, the 1½-ton models include larger diameter front brakes, larger and wider linings, stronger anchor plates and shoes, increased mechanical advantage of brake linkage, stronger and more rigid linkage, more rigid pedal, larger cross-shaft, and stronger cross-shaft levers.

Other changes include the adoption of a new, waved clutch plate in the ½-ton model, that is said to eliminate chatter; revisions in springing of all models to provide greater flexibility for load variation; and changes in construction of main and second leaves. In the rear axle a roller bearing is used at the rear end of the pinion shaft, instead of a ball bearing. Pinion shaft diameter has been increased.

On the 1½-ton trucks, 6.00 x 20 tires are used on the front and on the rears when duals are supplied. Special wheels are available to accommodate 32 x 6 or 7.00 x 20 tires. Auxiliary

(*Please turn to page* 60)

A "CAMEL-BACK" NOW BUILT BY F. W. D.



THE Four Wheel Drive Auto Company, Clintonville, Wisconsin, has built and just released a new Model designated as "The Camel Back." It is listed technically as Model X6 Special, and is unique in appearance as well as design in the FWD line. The cab is set over the engine to give maximum space for pay-load, and still preserve a relatively short body length.

The big advantage in the new model is that a very large proportion of total length is available for pay-load. The truck is so constructed that there can be perfect distribution of load weight, with "waste" space reduced to a minimum, according to the makers. Safety, as well as maneuverability, is greatly increased by setting the front axle back 42½ inches from the line of the front bumper.

The "Camel Back" is equipped with six wheels and three axles, each axle carrying exactly one-third of the load. Power is applied, in equal amounts, on the front axle of the truck and the front axle of the bogey. Thus, because the weight is equally distributed, the traction on all driving wheels is the same. Braking force is exerted equally on all six wheels. An emergency brake drum is located on the transmission.

The new truck is designed for milk industries, for petroleum transportation and for the inter-city hauling activities where high speed and quick manipulation of heavy and bulky loads are desired.

The all-steel cab on an all-steel mount is of special design. There is ample room for the driver for free body movement, and yet the low contour and lines of the cab are conserved. Specially treated, rubberized hair is used in the cushions. The driver's vision is free and clear front, back, and to either side, large glass panels giving wide scope.

The rated capacity of the X6 Special is 40,000 pounds, gross, with a chassis weight of 14,000 pounds, cab included. Body space back of the cab varies with the wheel-base as follows: On the 170-inch standard wheelbase, the body space is 180 inches. On the optional 180-inch wheelbase, it is 198 inches. And on the 190-inch wheelbase, the body space is 216 inches. The frame is constructed from heat-treated, high-carbon channel steel, reinforced amidships by gusset plates. The steering gear, located on the left side, is of

(*Please turn to page* 66)

QUESTION *of the* MONTH

"By far, one of the most valuable departments to be found in any automotive publication. Every fleet man should be delighted to cooperate."—A Reader

« Brake Maintenance »

(Some of the Interesting Replies to Questionnaire No. 52:)

By P. E. Zimmerman, Supt. Buses,

Lehigh Valley Transportation Co., Allentown, Pa.

"ALL of our brake relining work is done in our own shop, except part of the brake drum reconditioning, which is farmed out. We use about three sets of lining per month and get about 25,000 miles, average, per set, which we think is good. Brake drums last about 50,000 miles. All brake lining is *ground*, after installation.

"We use flexible-moulded lining for both internal and external brakes, but do not think there is a brake lining made that can be used on all types of brakes and give good results.

"Brake lining is purchased in cut-to-fit sets, from automotive jobbers. We specify it by make and by number of the set. Our fleet consists of 54 buses."

●

By W. A. McGlade, Supt.,

Sumner County Eng. Dept., Wellington, Kans.

"ALL of our brake relining is done in our own shops; also all brake drum reconditioning. We use about six sets of lining per month and prefer to purchase lining in rolls, from automotive jobbers. Of course we specify lining by make when ordering.

"We get about 40,000 miles per set of lining and about 100,000 miles per set of drums, which we believe is satisfactory for our operation. When replacing brake drums, we use factory equipment throughout.

"Moulded lining can be used for all types of brakes, but we have *not* as yet found one kind of lining that can be used satisfactorily on all types of braking systems.

"We operate a fleet of 32 trucks, 9 caterpillars, 7 passenger cars, 5 buses and 10 pieces of miscellaneous equipment."

●

By Dave Buttles, Supt.

Valley Motor Lines, Inc., Fresno, Calif.

"WE prefer moulded lining for internal-expanding brakes and woven for external brakes, and thus far have *not* found a lining that can be used on all types of braking systems.

"We prefer to purchase replacement lining in cut-to-fit sets and we use about 15 sets per month, on the average, purchased from automotive jobbers.

"With reference to the approximate mileage per set of lining, this figure differs so greatly in our fleet, that it would be worthless, even if we gave it. However, we consider it good mileage, considering our type of operation.

"Where the vehicle is adequately braked, we get about 150,000 miles per set of brake drums. Reconditioning, when they become worn, is farmed out to specialists in this work. However, all of our other brake work is done in our own shop.

"We use a good many systems of air-operated, steel-to-steel brakes. These are by far the best for our service. We operate a fleet of 75 trucks, 50 trailers and 5 passenger cars."

●

By H. B. Schultz, Mgr.,

Red Top Cab Company, Ft. Wayne, Ind.

"MOULDED lining is preferred for internal-expanding brakes and woven for external. We have never tried to find a lining that would work on all types of braking systems.

"We prefer to purchase replacement brake lining from the vehicle dealer, where we can exchange the shoes for relined ones. We use about five sets of lining per month and our average mileage per set of lining is about 12,000 miles, which we do not think is enough, considering our type of operation.

"Brake drums are not reconditioned; they are never replaced either. However, all our brake work, except attaching the lining to the shoes, is done in our own shop. Our fleet consists of 30 taxicabs."

●

By G. Harmston, Fleet Supt.,

Frenzel Brothers Co., Chicago, Ill.

"NINETY per cent of our brake work is done in our own shop. The reconditioning of brake drums is farmed out to other shops who are equipped to do this work.

"We prefer moulded lining for internal-expanding brakes and woven for external. So far, we have *not* found a lining that can be successfully used on all types of brakes. Replacement brake lining is obtained in cut sets and also some shoes are exchanged for relined ones. We use about 12 feet of brake lining per month, average, at present, obtained from jobbers.

"Our fleet consists of 30 trucks, 6 trailers, 12 passenger cars and some miscellaneous excavating equipment."

By A. E. Ernest, Foreman,

Waer Bus Lines, Easton, Penna.

"FOR our fleet of 16 buses and 2 trucks we obtain our brake lining from the brake manufacturers' agents. This is ordered by make and also by part number. All of our brake work is done in our own shop, excepting brake drum truing, which is farmed out.

"We get about 30,000 miles per set of woven lining; no check on the moulded as yet, due to changeover of some equipment; we have no records up to the present time.

"Our preference is moulded for internal; and woven for external brakes. We prefer to buy brake lining in rolls and in cut-to-fit sets where obtainable. There is no one lining, according to our knowledge, that can be used satisfactorily on all types of braking systems."

●

By O. F. Wagoner, Foreman,

Iowa Public Service, Waterloo, Iowa

"BRAKE lining is usually specified by make when we order it, both from the jobbers and from the vehicle dealers. We prefer to purchase it in wide sheets and also to exchange shoes. About three sets per month are used in our operation.

"Average mileage per set of lining is 15,000 miles, which we consider sufficient, taking into account the type of operation. We get about 40,000 miles per set of drums.

"About 50 per cent of our brake work is done in our own shop; the balance is farmed out, as is all brake drum reconditioning work. We prefer moulded lining for internal-expanding brakes and woven for external. We have *not* found a lining that can be used on all types of braking systems. There are 40 trucks, 5 trailers and 10 passenger cars in our fleet."

●

By W. T. Bowers, Foreman,

Schluderberg-Kurdle Co., Baltimore, Md.

"OUR brake shoes are called for, relined and delivered back by our jobber, as it would not pay us to buy brake lining in rolls, owing to the variety of sizes that we need. All other brake work, however, except truing the drums, is done in our own shop. We specify the make of lining to be used.

"We get from 10 to 40,000 miles per set of brake lining, which we consider very good. Brake drums last from 50 to 100,000 miles; this varies with different vehicles.

"Moulded and die-pressed lining is preferred for internal brakes; woven for external brakes. We have *not* as yet found one type of lining that can be used on all types of brakes. We operate 48 trucks and 40 passenger cars."

(Please tear out and mail to The Editor, The Fleet Owner, 90 West St., New York City)

Question No. 54—Insurance (Confidential)

What percentage of the vehicles in your fleet are insured? (Please indicate below)
Trucks and other Commercial Vehicles.....% Passenger Cars.....% Buses.....%

What TYPES of Insurance do you carry on your various vehicles? (Please check below)

TRUCKS and OTHER COMMERCIAL VEHICLES:
☐ Fire; ☐ Theft; ☐ Collision; ☐ All-Physical Damage; ☐ Personal Liability; ☐ Property Damage; ☐ Cargo.

PASSENGER-TYPE CARS:
☐ Fire; ☐ Theft; ☐ Collision; ☐ All-Physical Damage; ☐ Personal Liability; ☐ Property Damage

BUSES:
☐ Fire; ☐ Theft; ☐ Collision; ☐ Personal Liability; ☐ Property Damage; Other Insurance?.....

What KIND of Company are you insured with? ☐ Stock Company; ☐ Mutual; ☐ Reciprocal or Inter-Insurer.

If Collision Insurance is carried, in what amount deductible from each loss? (Please state below)
Trucks and other Commercial Vehicles $..... Passenger Cars $..... Buses $.....

What limits of Public Liability do you carry? (Please state below)
Trucks and other Commercial Vehicles $..... Passenger Cars $..... Buses $.....

If Cargo Insurance is carried, what is the limit per vehicle? $.....

Have you calculated your Insurance Costs on a Cost-per-Mile Basis? If so, what is the Cost-per-Mile?.....

What is the total mileage, per year, of all the insured vehicles in your fleet? (Approximate) .....

Has the institution of safety campaigns or safety equipment helped to reduce your Insurance Costs?.....

If so, what per-cent reduction in cost?.....%

Please check any of the safety measures that have been instrumental in effecting such a reduction (See below)

☐ Driver Training	☐ Flares, Lights, etc.	☐ Fire Extinguishers	Others .....
☐ No-Accident Campaigns	☐ Reflectors	☐ Air or Booster Brakes	.....
☐ Bonus Awards	☐ Turn-Signals	☐ Alarm Systems	.....

Do you employ a Safety Engineer?..... Or, is one provided by the Insurance Company?.....

Is there any other type of Insurance that you NEED, but that is not available? (Explain).....
.....

Remarks: .....
.....

How many vehicles in your fleet? (Please state below)
Trucks or Tractors..... Trailers..... Pass. Cars..... Buses..... Miscellaneous.....

Note: If you cooperate with us and fill out this questionnaire, you will be entitled to a tabulated report covering all of the answers.

Swap your Maintenance experience with other fleet operators in this easy, convenient way. We do the work. You get the benefit.

Name of Firm .....
Address .....
City and State .....
Your name ..... *Position*.....

Solving Problem of Small Meat Deliveries

USING a freight car to deliver a loaf of bread, would be an inconceivable extravagance. Yet, the principle involved represents a problem which industries in certain lines must face, and solve, namely—the occasional delivery of extremely small quantities of merchandise which cannot be economically transported with regular equipment that is adapted to much heavier loads.

Meat packers, for instance, have faced a particularly perplexing problem in maintaining relations with small buyers and handling delivery of special orders without incurring transportation expense out of all proportion to the volume of business involved.

The Union Meat Company of San Antonio, Texas, is one of the packers who solved this problem by means of the peddler truck. This is light insulated or refrigerated equipment. These trucks are operated by driver-salesmen, who sell direct to retailers, delivering merchandise at the time of the sale, thus saving an extra trip. These peddler trucks operate on schedule, reaching the merchant's store at the same time each day. Specials are usually delivered in salesmen's coupes later in the day.

Mr. James A. Gallagher, Jr., General Manager of the Union Meat Company, states that a volume of at least 5,000 pounds weekly is needed to make the packer's peddler truck profitable. But even though it has been difficult the past few years to develop profitable routes, Mr. Gallagher thinks there are distinct advantages to this plan of operation.

Among them is the elimination of many small orders from regular deliveries. It also does away with wrapping expense, cash sales and the practice of retailers buying more than they intended.

Regular deliveries are handled by the Reo 1½-ton trucks, shown in the accompanying picture, which make two deliveries each day, one in the forenoon and the other in the afternoon. Small orders are taken care of by 4 smaller peddler trucks.

Thus does the Union Meat Company solve the problem of serving customers large and small, while maintaining transportation costs within reasonable limits.

●

Trucking Code Seen as Transportation Advance

TRAFFIC directors at the automobile factories who use motor trucks for various services to supplement their extensive shipping by rail, look askance at suggestions for additional Federal laws that would affect trucking operations, accordings to James S. Marvin of the National Automobile Chamber of Commerce, who attended sessions of the National Industrial Traffic League, held at Chicago recently.

"There has been no lack of regulation" said Mr. Marvin. "Each state controls its highways and regulates the size, weight and speed and determines the taxes and fees of motor vehicles. Forty-two of the states undertake some control over rates. In addition, we now have the Trucking Code, which is Federal Law, and it is difficult to see what could be accomplished in the interest of the public by additional Federal legislation, and how the Code, which provides for rates at not less than cost as a measure of stability, could operate in harmony with additional supervision by the Interstate Commerce Commission.

"The actual effect of the Trucking Code can not yet be appraised. It has been a tremendous task to register 240,000 trucks with data on their operations, but it will permit a study of the whole question, heretofore not available. It is also taking time to determine the cost formula on which to base rates, but this work is reported to be now about completed.

"Obviously the only sound method of ascertaining the economic position of the truck is in basing its charges on its costs. Comparison with rail rates is misleading because of the dissimilarity of trucking service and railroad service. The individuality of trucking operations will probably never permit regulation of its rates in as great detail as undertaken in railroad classifications and tariffs."

●

Wagner Brewery Has New Fleet of Internationals

THE fleet of five International six-cylinder Model B-3 motor trucks shown in the accompanying illustration has recently been purchased for the transport of the well-known Wagner beer in the metropolitan St. Louis area. According to Edwin T. Brendecke, president, the Wagner Brewing Company, the demand for this beer has been increasing and the new fleet of trucks shown will help greatly in speeding deliveries.

Each truck is of 160-inch wheelbase, is fitted with stake body 12 feet long and 7 feet wide, and has a capacity of forty-eight half barrels (wood). The cab and panel board are painted an attractive maroon color and on the panel board is also painted the Wagner trade mark, a shield in red, white, and blue with ribbon running through it. This is the same familiar shield that appears on the Wagner bottle labels and in the company's newspaper advertising.

Operators of these trucks are salesmen as well as drivers and are bonded. Great care is exercised in making them safe drivers and a plan of awarding prizes to no-accident drivers has been inaugurated. A garage for the new trucks is at the company's distributing plant, Grand and Herbert Streets. The trucks operate within a radius of 20 miles, going as far as Alton and Bellville.

The Wagner Brewery was built in 1904 and is the latest beer-making plant built in the St. Louis region. Many of the men employed in the brewery before prohibition, including Brew Master George Schmidt, are now at work in the plant. The brewery has a present capacity of 80,000 barrels a year.

New equipment includes storage vats and modern bottling machinery in which bottles are washed, sterilized, filled, capped, pasteurized, and labeled (both body and neck) before any hand touches them. Some 14,000 bottles must be lined up in this bottling plant before one bottle comes out, and it takes a single bottle one hour and fifty minutes to make the complete round. One foul bottle will automatically cause the entire machinery to stop.

JOHN LAW SEZ:

Recent Court Decisions and other Laws as Reported by American Trucking Associations, Inc. and The American Petroleum Institute

IOWA

Motorist Negligent in Collision

THE Supreme Court of Iowa recently made a far-reaching decision with regard to negligence on the highway. A motorist who collided with the rear of an unlighted truck parked on the highway, while driving at from 40 to 50 m.p.h., was held guilty of contributory negligence and could not recover damages. The facts showed that the motorist was blinded by the lights of an approaching machine, and in losing visibility crashed into the truck. The court said:

"When the plaintiff lost visibility because of the lights of the approaching car, he should have reduced his speed so that he could stop immediately. Had he done this, the accident would not have occurred. The approaching lights did not constitute a diverting circumstance, and the plaintiff should have either discovered the presence of the parked truck in the road in time to avoid a collision, or should have reduced the speed of his car to such an extent that would permit him to stop within the assured clear distance."—*A. T. A. Bulletin.*

●

MARYLAND

Shipper Not Liable for Negligence

THE Court of Appeals of Maryland recently held that a retail coal dealer in the city of Baltimore was not liable for damages in which was involved a contract truck operator who hauled coal for him.

The truckman was adjudged to be "an independent contractor" and not "a servant" of the coal dealer, hence the dealer was not liable for the driver's negligence. The driver had entire control and possession of the truck, was responsible for its upkeep, chose his own helpers and was compensated according to every job of hauling.—*American Trucking Associations.*

●

MASSACHUSETTS

ICC Upholds Store-Door Rates

THE Interstate Commerce Commission recently dismissed the complaint of the Motor Truck Club of Massachusetts, against the store-door rates of the Boston & Maine R. R. The motor vehicle association had charged the rates were unreasonable, unjustly discriminatory and unduly prejudicial. The complaint alleged the rates charged were the same as the road's class rates, and therefore non-compensatory.

"What complainant is really asking us to do," the I. C. C. report stated, "is to exercise our authority to prescribe minimum rates. We have said a number of times that this power should be exercised only where necessary in order to avoid substantial public injury. The minimum charge here is 30 cents per 100 pounds. If half of that, 9 cents at Boston and 6 cents elsewhere, is paid to truckmen for store-door service, 15 cents is left to defendant. There is no evidence upon this record indicating that the traffic in connection with which this store-door service is rendered does not pay its own way; in other words, that the revenue resulting under the minimum charge or under any of the applicable rates in connection with this service has the effect of casting a burden upon other traffic"—*American Trucking Associations.*

●

MASSACHUSETTS

First Code Court Decree Issued

THE first court enjoinder against violations of the Trucking Code was issued recently, when The Brockton Transportation Company, Brockton, Mass., was perpetually restrained from breaking provisions of the code, according to the American Trucking Associations. The enjoinder was handed down in U. S. District Court in Massachusetts by Judge Brewster and the decree was signed by the defendant. If the company disregards the court's order, it will be in contempt and therefore liable to immediate punishment, at the discretion of the court.—*A. T. A. Bulletin.*

●

SOUTH DAKOTA

Weight Restriction Law Held Legal

SOUTH DAKOTA'S weight restriction law was held to be not unconstitutional in a decision handed down recently by the Supreme Court of that State.

The law, entitled "An act prescribing weight and length of motor vehicles," was passed March 8, 1933. It fixed a gross weight of 20,000 pounds for motor vehicles and load, providing that tractor-semi-trailer combinations, licensed before April 1, 1933, could be operated with gross weight not exceeding 30,000 pounds.

The act was challenged by the Tri-State Transfer Company on the ground that the title did not include the load of the vehicle and, therefore, was contrary to State statute which provides that "no law shall embrace more than one subject, which shall be expressed in its title." The company further contended that the law was confiscatory in that it involved the deprivation of property "without due process of law," and that it was discriminatory against a certain class of citizens.

The court, however, overruled all the contentions of the appellants and affirmed the judgment of the lower tribunal, upholding the action of the legislature.—*A. T. A. Bulletin.*

●

NEW YORK

Gas Racketeers Found Guilty

TWO Brooklyn (N. Y.) gasoline dealers were tried and convicted of substitution recently, in the Court of Special Sessions, on evidence gathered by an investigator for the New York Petroleum Industries Committee. The defendants were indicted by the Kings County Grand Jury, after the case had been dismissed by Magistrate Hirschfield in the Magistrates Court.

Both men were charged with dispensing substitute gasoline from pumps bearing the insignia of trademarked gasoline brands, which is illegal in the State of New York. Assistant District Attorney DiGovanni obtained the conviction. Sentence was imposed January 21st.—*American Petroleum Institute.*

●

OKLAHOMA

Must Sue for Gas Tax Refunds

TAXPAYERS in Oklahoma must pay oil taxes under protest and sue for refund, rather than seek injunctive relief, a three-judge federal court sitting in Oklahoma City has decided, in refusing an injunction sought by the Gypsy Oil Company against collection by the state tax commission of the ⅛ cent a barrel tax on oil produced from Osage Indian leases for the support of proration.

Following the decision passed by the district court, the case was taken to the United States Supreme Court in Washington, which dismissed the appeal for want of jurisdiction.—*American Petroleum Institute.*

●

PENNSYLVANIA

Trucking Code Teeth Snap Down

THE "teeth" of the Trucking Code snapped down on another violator last month. A Philadelphia operator agreed to make wage restitutions totaling $500 to 40 employees. The amount will be paid in monthly installments of $100 each. The operator in question had filed the certificate of compliance. The case was settled without reference to Washington, or legal action.—*A. T. A. Bulletin.*

PERSONALLY

ALL material listed on this page has been personally selected and is recommended by your Editor. Executives of automotive fleets may obtain any or all of them by marking the numbers on the coupon below. You have our assurance that this will not obligate you in any way. And, when we say that this material is hand-picked, we mean . . .

SELECTED!

« LITERATURE »

210. **It is the Law!** Legal advice is usually costly. This type is not, for when you wish to run your trucks into other states, you won't have to consult a lawyer or a transportation expert—not if you have a copy of the book entitled "Truck and Trailer Size and Weight Restrictions" . . . This is a *real* handbook that includes every state in the Union. To make it official, each set of state laws is printed right in the book, and is countersigned by a prominent authority of each state. There's not a line of advertising in the book, and it's offered *free* to you . . . If you'd like a copy, mark Number 210 on the coupon below and we'll do the rest.

•

211. **Piston Ring Directory.** We'd even call it a catalog, as we're not the type of individual who tries to disguise things by giving them glorified names. This new issue covers all models of passenger cars, trucks, buses, taxicabs, engines, motorcycles, tractors and airplanes. If you have a boat, you'll even find your favorite marine engine listed . . . In addition to all that, there is a section containing piston-ring installation instructions, recommended clearances, combinations, etc. . . . So you see, it's a worthwhile piece of literature, after all . . . Number 211 brings a free copy. Use the coupon, please.

•

212. **For a Cold Burn-off.** There are other ways of "burning-off" paint without the use of a torch, although many people still think that this expression only refers to the hot method. Any kind of paint-removing is called "burning off," if you didn't know it. . . . What we are driving at is this: Oakite has developed a new product called "Cold Strip," which is designed for speedy paint removal, since you only have to flow it on with a hose and flush it off with fresh *cold* water. They tell us that you don't have to push and scrape to get the old paint off, as the hose will do the trick quite nicely. . . . Literature is now ready, covering the complete application—how to do it—and they'll be glad to send you the dope. That is, if you mention Number 212.

•

213. **Something for the Tire Man!** The man who looks after your tires should not be without the latest catalog on tire valves and valve converting equipment, offered by Schrader. . . . Believe us when we say that this is not only a handsome catalog, but is as practical as it is good-looking. For one thing, the various valves and fittings have been so charted that the desired size can be readily ascertained. . . . All of the new Schrader "Airline" products are included and easy reference to the data is a feature. Number 213 brings one, free for the asking.

•

214. **Dope on Graphite Oils.** Whenever fleet men meet, the subject of graphited lubricants is always a live topic of conversation. There are many different opinions on the subject, some of which are not exactly based on facts. . . . In order to set you right, the "papa" of the colloidal graphite industry, who has spent mililons of dollars in research, feels that it is his duty to pass on the real "low-down" on the situation. He offers a set of what he calls "technical bulletins" which reveal the particular information that will interest any user of gasoline engines. . . . We've read the bulletins and they're not really technical in the strict sense of the word, as we had no trouble in understanding them . . . If you'd like to read them, a free set can be obtained by indicating your wish with Number 214.

•

215. **Trucker's Handbook.** And here is a new operator's handbook that is just chock full of valuable truck tire data that you can put to immediate use. . . . We'll just omit the flowery description and suggest that you include Number 215 on our coupon below, if you want a copy. Like all other stuff on this page, it comes without cost, obligation or salesmen.

•

« FREE SAMPLES »

216. **A New Radiator Cleaner.** But it's not an untried product. The makers of Sani-Flush, which all of us have used in our bathrooms at home, now enter the automotive field, with a product bearing the same name, that has been especially designed for cooling-system cleaning. . . . They offer you a fair trial sample, so that you may see for yourself the kind of a job it will do. Since Spring is right around the corner (where have we heard that before?), we feel it is proper to include it in this department. If you would like to get in on this free offer, just mention Number 216 on our coupon below. Then forget about it, until you get the sample.

•

217. **More About Painting.** We've probably published more than our share of articles on vehicle refinishing, within the past twelve months. But, it seems, we haven't said much about masking. . . . In order to do neat work, some kind of masking-tape must be used, and to make up for our not mentioning it sooner, we've arranged that a liberal sample of paper masking-tape may be sent to you in time for your next paint job. Johnson & Johnson makes it, so it ought to be good. It comes in standard sizes from ¼" to 36" wide. . . . A nice working sample will be sent free if you mention Number 217 on the coupon. Need we say more?

•

218. **Real Fibre Sheet Packing.** There are many types of sheet packing on the market today, says the Vellumoid Company. . . . Of course, they would like to see you insist on theirs, instead of others. So, as an incentive, they offer, through this department, a liberal sample of sheet packing, from which you can make up some hard-to-get gasket. There's no obligation, except that they'd like to see you order your next supply *by name*. . . . If you have not as yet had the opportunity of using it, here's your chance to get acquainted. No obligation will be incurred if you mention Number 218. And the sample will be a liberal one, we're assured.

The Editor, FLEET OWNER, ...1935
90 West St., New York, N. Y.

Kindly send me without cost or obligation the following literature mentioned in the March issue. (Order by number)

....

....

Name of Fleet.....

Address .....

City and State.....

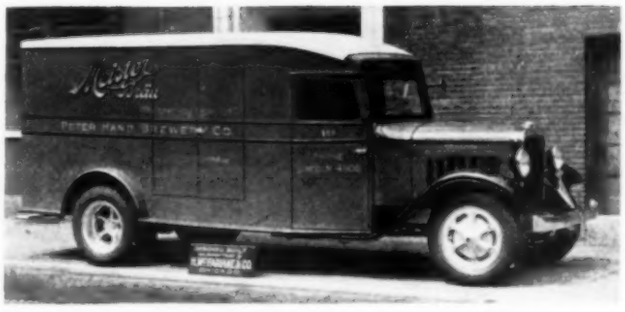
Your Name..... Position.....

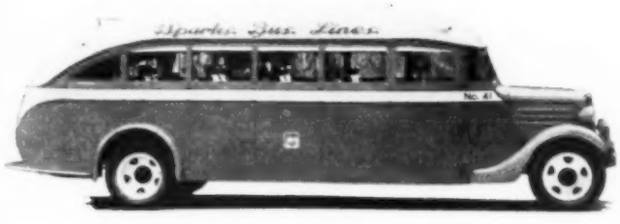
Number of Vehicles Operated.....

1ST CHOICE

IN EVERY FIELD!

PHEMALOID FLOORS





Phemaloid Compound Lumber makes the ideal floor for **every** type of body because it is light, strong, and satisfies the most rigid requirements for durability. . . . Weight for weight, Phemaloid is the strongest material available. Consider a 1 inch Phemaloid floor panel supported by cross sills three feet apart under a distributed load of fifty pounds per square foot, this panel will deflect only 8/100ths of an inch! . . . Phemaloid is glued with a waterproof resin adhesive that defies weather and withstands the assault of travel and traffic indefinitely. . . . Consider also that Phemaloid makes a more rigid and dustproof body. Phemaloid saves the fleet owner money because it reduces maintenance and replacement costs.

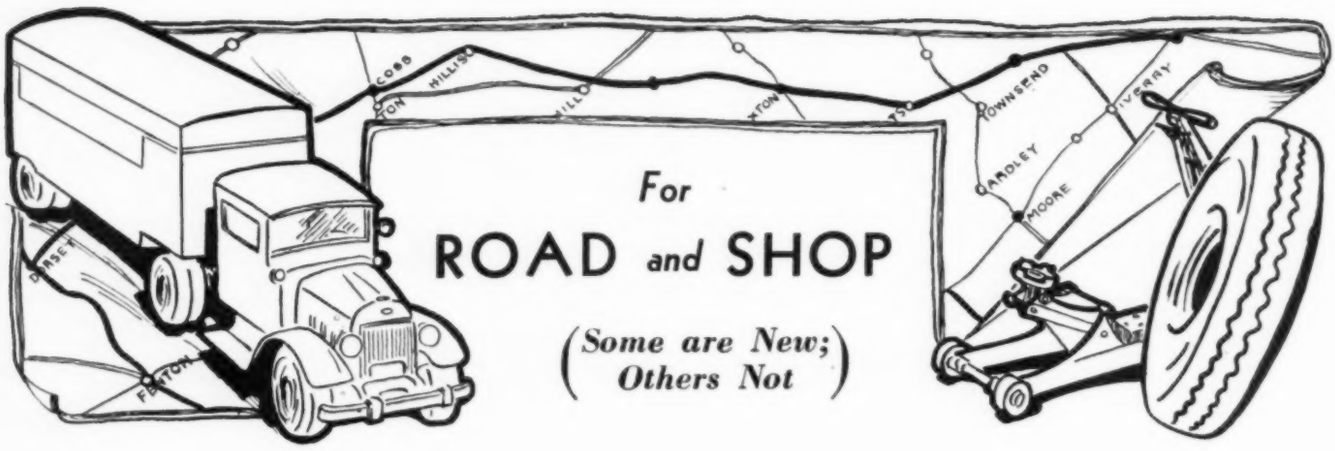
A. C. Miller & Co.
Atlanta, Ga.

Above—One of a fleet of brewery trucks built by H. McFarlane, bodybuilders of Chicago.

Center—Intercity coach built by the Flxible Company. Phemaloid floors are standard equipment.

Below—Read Mr. Miller's letter—it is typical of Phemaloid's nation-wide acceptance.

HASKELITE MFG. CORPORATION
208 W. WASHINGTON ST.
CHICAGO



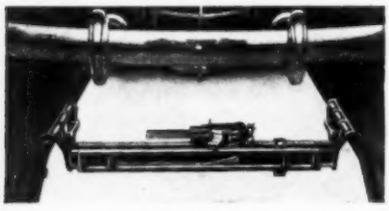
For ROAD and SHOP

(Some are New; Others Not)

"Free Wheeler" Jack is New

OF interest to the service man is the new "Free-Wheeler" jack, developed and marketed by the Joyce-Cridland Company, Dayton, Ohio, makers of lifting equipment for many years.

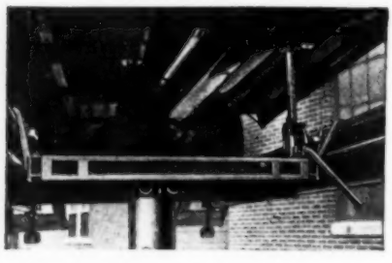
The company claims for its product that it overcomes service and lubrication difficulties encountered in work-



ing on many late car models that have low-skirted fenders, individually-sprung wheels and intricate under-car mechanisms.

The jack consists of a horizontal bar, available in sizes to fit any pit or lift, which slides along under the car to any position and supports the jack itself. The jack, in turn, slides across this horizontal bar to any desired position. To the head of the jack is fitted an adjustable arm, which may be set to directly contact and elevate the car frame at any desired spot.

The maker claims that by lifting against the car frame, it makes pos-



sible completely adequate lubrication, particularly on new-type cars. With this jack, the under-body mechanism is relieved of all weight.

The jack has a lifting capacity of five tons and folds down compactly when not in use, to permit cars to drive on or off the lift or pit. For interesting free circular address the firm above, mentioning this publication, if you please.

Match-Colors for Popular Cars

AUTOMOTIVE refinishers and touch-up men who have run into trouble with pyroxylin lacquers tending to bite into the old finish, causing "raising" or "splitting"; or who have found synthetics inclined to weather to a different color and hard to cut-in with on a touch-up because of a difference in gloss, will welcome this news from E. W. Windsor, of The Sherwin-Williams Company, Cleveland, Ohio.

A new automotive finish especially suitable for refinishing or spot painting has been developed by the Research Department of Sherwin-Williams. It is a combination finish known as Opex OK enamels, and is described by the maker as follows:

"The finish is quick drying—which means the virtual elimination of the

dust hazards where shop conditions are poor. It possesses exceptional build and the enamel dries to a smooth, high natural gloss without sanding, polishing or rubbing. This is largely due to the qualities of the Opex OK sealers, black and gray, with their high solids at the gun.

"The line consists of a range of 21 colors representing ready-mixed matches for all the most popular 1934 and 1935 standard Ford, Chevrolet and Plymouth colors, as originally used on these models at the factory.

"This range of bright attractive colors was confined to the "Big 3," as they are referred to in the Automotive Industry, because they represent over 80% of the motor cars registered in the U. S. A. today and 90% of all the motor car sales made during the calendar year of 1934."

Driver for Valve-Seat Grinder

HERE is a high-speed driver of Hall's own design, especially devised for operating the "Flex-Centrik" valve-seat grinder, both of which are made by The Hall Manufacturing Co., 1620 Woodland Ave., Toledo, Ohio.

This driver gives the Flex-Centric grinder a speed of 10,000 r.p.m., as

compared with approximately 1,500 r.p.m. which is obtained from the usual ¼" drill.

The Flex-Centric outfit comes complete with diamond dresser, flexible driver, etc., for use with either an electric drill, or the high-speed driver illustrated here. Pilots and grinding wheels may be obtained individually or in a variety of sets. For further details, please write to Hall, whose address is given above. They'll appreciate it if you mention FLEET OWNER. And, of course, we will, too.

•

New Bosch Auto Radios

A NEW line of American Bosch car-radios that *look* different and *sound* different, is announced by United American Bosch Corporation, Springfield, Mass.

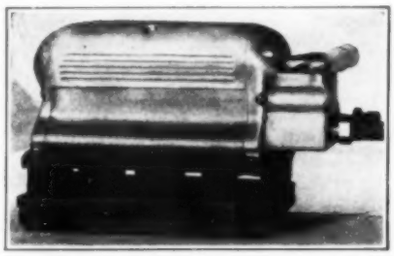
A feature is that the new instruments are neither square nor oblong, but *round*, being built on the principle that a curved or cylindrical shape guards musical tone against unwanted vibrations and distortions. In the round housing of the new "Vibro-Balanced" radios, the vibration frequencies of all component parts are well balanced and blended, the makers state.

There are several police-car models in the new Bosch line for 1935, all of which have been improved, to include such features as better anchoring construction, sensible selectivity and balanced sensitivity. In addition, a new type of control and a new "spark noise trap" are included. Literature containing full description of the new radios will be sent on request.

New Power Sanding Machine

A NEW sander is announced by Sterling Products Company, Detroit, Mich. It weighs 7 pounds and is operated on compressed air (60 lbs. or more), using 6 cu. ft. of air per minute, according to the makers.

This sanding machine operates with a back-and-forth stroke of 1¼



inches, at a reciprocating speed of about 2,500 to 3,000 oscillations per minute. The pad moves back and forth, as in hand-sanding, hence does not leave a graining in the surface. A water connection is provided for wet-sanding.

The pad is made of specially impregnated rubber and felt, and is flexible. Several sheets of abrasive may be attached to the pad at one loading. The makers claim that it can be used on all types of work,—convex, concave, flat, round, etc. Also that it can be used for sanding or polishing. For further details, address the firm above, and an interesting circular will be sent without obligation.

•

Acetylene Soldering Iron

THE soldering iron outfit illustrated here is one of the Prest-O-Lite products that is recommended for general purpose work. It operates on a tank of acetylene gas, without air pressure or any outside connections.

The makers recommend it for any type of soldering work. An open-flame tip can be used for doing small, close soldering, such as on radiator cores, electrical equipment, etc.

This is only one of the complete line of products bearing the Prest-O-Lite trade mark. For interesting catalog on acetylene soldering equipment, address Linde Air Products Company, 205 E. 42nd St., New York City. Mention of this publication will please us very much.

New Tire for Mud or Snow

RUGGED in appearance and different in traction and riding qualities than any tire of the past, this new "mud and snow" tire was developed for the most adverse conditions of winter driving.

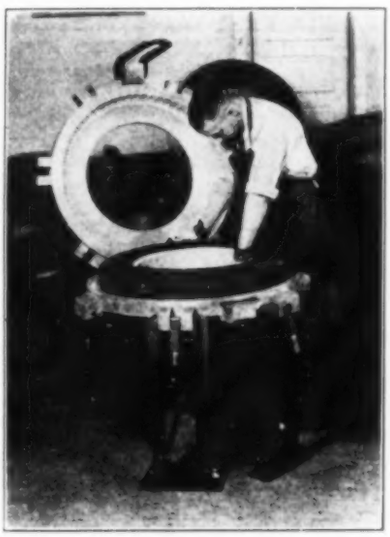
The scientific design of the tread is said to provide maximum traction in snow or mud, as well as providing easy steering and smooth riding on paved streets and highways.

Besides giving maximum protection against skidding in city or country, the new tire offers many advantages in riding comfort and protection from side-slips. Greater traction pulls it through mud holes and snow drifts, the makers state.

For the present it is made in passenger car tire sizes only. For further details address Firestone Tire & Rubber Company, Akron, Ohio. Mention of FLEET OWNER will be appreciated by them and us.

•

Shaler Full Circle Retreader



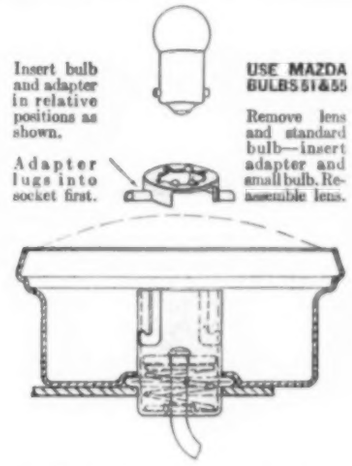
A FULL-CIRCLE retreading vulcanizer has been added to the line of equipment made by The Shaler Company, Milwaukee, Wis. The molds, of aluminum, are claimed to have many distinct features. The machine was designed for retreading smooth-treaded tires with good carcasses.

The non-skid design is attractive and effective, it is claimed, and does away with matrices, curing shells, bead-plates, etc. Spacer rings are provided so that a large range of sizes may be cured in each mold. The lightness of the aluminum makes for ease of handling, too.

Fleet operators who have been considering the purchase of retreaders, or who are interested in having retreads done by the Shaler process, are invited to correspond directly with The Shaler Company, Milwaukee, Wis. Mention of FLEET OWNER, when writing, will be appreciated.

Delta Bulb Adapter

HERE is a new little device that will help you to reduce much battery drain. It is an adapter that makes it possible for fleet operators


Insert bulb and adapter in relative positions as shown.
USE MAZDA BULBS 51 & 55
Remove lens and standard bulb—insert adapter and small bulb. Reassemble lens.
Adapter lugs into socket first.

to substitute the new, low-drain, miniature-base bulbs, in place of the bulbs now being used in clearance and marker lights.

Large numbers of trucks, buses and trailers are equipped with marker lights. In many cases these are of 3 and even 6 candlepower. The substitution of minature bulbs will prevent run-down batteries. The adapter illustrated here makes it possible to switch over. For details, write to Delta Electric Company, Marion, Ind., mentioning FLEET OWNER, if you please.

•

Presto-O-Lite Soldering Outfits

A COMPLETE line of torches, soldering irons and allied equipment for the utilization of the acetylene-air flame is announced by the Linde Air Products Company, 205 E. 42nd St., New York City.

The 5-in-1 outfit for general utility is shown here. This combines stem assemblies for very fine, light, medium and heavy soldering; also one for copper soldering.

Prest-O-Lite torches and soldering irons are available in convenient outfits for every soldering, brazing and heating requirement. Sixteen different torch outfits enable the user to select the one best suited to his needs. For interesting catalog, address the firm mentioned above. If you say you saw it in FLEET OWNER, we'll appreciate it.

27-VEHICLE FLEET GETS THE "CREAM"

(*Continued from page* 17)

beginning of their careers as drivers, they are imbued with that spirit and enthusiasm which help so much to sustain the efficiency of the organization. They must be clean, they must have a fair education and they must be big and strong enough to handle heavy cans of cream and milk.

Each man applying for the job of driver must fill out the blank reproduced in an accompanying illustration. Before he is hired, Mr. Brown said they make a close check of him and for three or four months the driver in the region from which he comes is told to keep a careful eye on him. After a man is hired, he is first carefully instructed by the fleet superintendent and then for four days he is sent out on a cream route and two days on a milk route, in each case going with one of the best drivers.

Cleanliness among the drivers is something that receives repeated emphasis; for a clean driver sets a good example to the cooperating farmers, with whom he comes in contact, and continually reminds them that cleanliness is a very important factor in the production of high-grade dairy products. Every morning the men must shave; and the blue-and-white coveralls which are furnished to them must be changed every other day. In the plant, white suits must be changed every day. All these suits are washed at the expense of the cooperative organization, the laundry bill for these being over $100 a month. Showers are also provided for the men.

Each driver is told again and again, also, that every member of the Cooperative has an interest in what he is doing and how he does it and that he really has 3,700 bosses, some of whom are always

(*Please turn to page* 62)

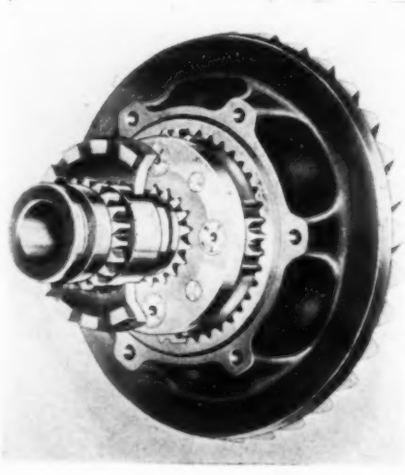
2-SPEED AXLE OPTIONAL ON NEW G.M.C. T-18

INTRODUCTION of a dual-performance axle was announced recently by General Motors Truck Company, as optional on the T-18 trucks in the two to three-ton range. This axle permits a lower gear ratio and more pulling power, enabling drivers to take heavy loads up steep hills over rough roads with less effort.

It also permits a higher gear ratio than common in a two to three-ton truck, enabling the driver to travel at faster speeds on level roads or when the truck is empty.

The dual-performance axle and standard four-speed transmission provide eight forward and two reverse speeds, a gear ratio properly spaced for every load and every road condition.

The special design of the dual-performance axle provides for a simple planetary reduction gear assembled between the oversize bevel gear and the differential and controlled by



a shift-lever installed in the cab.

A simple movement of this lever enables the driver to change instantly—under any operating condition—to the low or high speed range. Dual performance results in decreased strain on both driver and vehicle.

With the high-high gear, loads may be hauled over smooth highways with greater speed and fewer motor revolutions . . . and therefore at less cost for gas and oil, it is claimed.

With the silent low-high gear, a load may be taken over many grades, rough roads and through traffic where with the ordinary axle it would be necessary to shift into slower transmission speeds.

And with the low-low gear, the dual-performance axle permits starting of the trucks heavily loaded, smoothly, saves shock loads on axle shafts and eliminates the necessity of "bucking" out of difficult places.

New, interesting literature has been prepared that illustrates and describes this new dual-performance axle. For your free copy, address General Motors Truck Co., Pontiac, Mich. You'll mention FLEET OWNER, when writing; won't you?

Chevrolet Trucks for 1935

(*Continued from page* 51)

springs are designed to take care of an overload of approximately 3 tons; they are included as standard when 32 x 6 ten-ply tires are used in the rear.

The Sedan Delivery on the new Standard chassis is a Fisher body in the same size and appearance as the Standard Sedan. The load space is 51 inches long, 52¾ inches wide and 40⅝ inches high.

Other bodies are available as follows: Half-Ton Trucks, 112 in. Wheelbase—Pick-Up, with or without canopy; Panel; Canopy Express, with or without screens. 1½-Ton Trucks, 131 in. Wheelbase—Panel, Canopy Express, with or without screens; Open Express, Platform, Stake (illustrated), Stake Express. 1½-Ton Trucks, 157 in. Wheelbase—Platform, Stake, Stake Express and High Rack. Chassis only, or chassis-and-cab, of course, are also available on all truck models.

Interesting literature has been prepared that fully illustrates and describes all of the new 1935 Chevrolet Trucks, much more fully than we can do it here. For your free copy, address Commercial Car Department, Chevrolet Motor Company, Detroit, Mich. Mention of FLEET OWNER when writing will help to identify your request and will be appreciated by Chevrolet and by the publishers.

White Trucks for 1935

(*Continued from page* 50)

every third truck on the road is more than six years old. To meet this outlook, White is augmenting its dealer organization and during the year will have the largest number of dealers in its history. Dealer representation is being secured in smaller communities than ever before, due to the completeness of the 1935 White line and the expanded market for them.

Literature covering White's offerings for 1935 is now ready. Address The White Company, Cleveland, Ohio, for your free copy. Mention of FLEET OWNER will be appreciated by them and by us.

"Aerotype" Valves for Trucks, Buses

A NEW heavy-duty valve of aircraft engine valve steel is now catalogued by Thompson Products, Inc., Cleveland, Ohio, for a number of trucks and buses.

Described as a "tailor-made part," specially processed to suit the characteristics of each engine for which it is listed, the new valve comes with a Stellite seat and stem tip in some instances. For certain other engines the Stellite is omitted. The steel used for this valve is claimed to be the best analysis developed up to the present time for aircraft engines. It has exceptional strength when hot, the makers state, and is highly resistant to burning and corrosion.

Thompson Products recommend the Aerotype valve for overcoming breakage, warping, rapid wear, battering and other difficulties often encountered in hard commercial service. List prices and full information will be sent on request. Mention of FLEET OWNER will help.

•

Improvement in Aluminum Pistons

THE latest step in the evolution of the aluminum alloy piston is Alumiliting—a process which forms a hard, smooth aluminum oxide surface as an integral part of the piston. This surface has fine bearing qualities and materially increases the resistance of the piston to scuffing. The life of a piston thus treated is substantially lengthened while cylinder wall wear is reduced, it is claimed.

The performance of aluminum pistons in the past few years has been greatly improved by two outstanding

developments of Aluminum Company of America: the invention of an alloy known to the trade as Lo-Ex; and that of the T-slot piston design, in which the vertical slot does not extend to the bottom of the skirt and in which several other valuable features are embodied. The Lo-Ex alloy, combined with the T-slot design, results in a piston which is claimed to be rigid, yet cylinder-conforming, lighter, more conductive to heat, and consumes less oil.

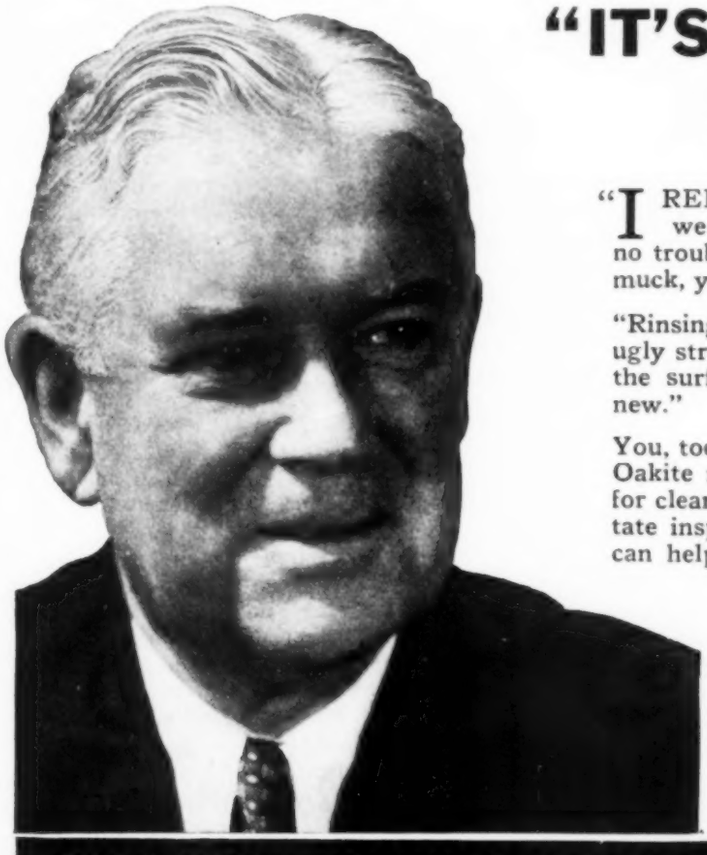
The engineers next directed their efforts toward developing a harder piston surface, resulting in the Alumilite process. The Lo-Ex aluminum alloy pistons are electrically treated in large tanks; the equipment resembles that used for electroplating. Machining and grinding are done before treatment and the thickness of the Alumilite finish can be controlled uniformly and within close limits. The oxide surface is made out of the metal and is not a layer of material deposited on the surface. This accounts for the tenacity with which it adheres to the piston surface and explains why there is little change in diameter during the treating process.

The Alumilite finish has the hardness and smoothness of a fine bearing surface, it is claimed. In addition, it contains innumerable invisible surface cavities which absorb oil and the importance of this, when the engine is first started, is recognized. The hardness of the Alumilited surface is of material benefit in reducing ring-groove wear and in maintaining piston pin bore diameters within their original limits. Unusual protection against scuffing is obtained. Pistons with the Alumilite finish are available for replacement in many engines.

•

Edison Plugs Used on IHC Model HD

ADOPTION of the Edison Spark Plug as standard equipment on the International Harvester Company's Model HD 1½-ton truck is announced by Arthur J. Clark, vice-president and general manager of Edison-Splitdorf Corporation, one of the Thomas A. Edison Industries in West Orange, N. J.



"IT'S EASY WHEN YOU KNOW HOW"

"I REFER particularly to truck washing. Since we have switched to Oakite cleaning, we have no trouble in removing every bit of dirt and traffic muck, yet WITHOUT HARMING THE FINISH.

"Rinsing is easy. Also thorough. There are no ugly streaks or cloudy film. Oakite cleaning leaves the surface clear, bright, and as fresh-looking as new."

You, too, can save money, time and effort by using Oakite materials not only for washing trucks, but for cleaning parts before overhaul in order to facilitate inspection, repair and assembly. Write. We can help.

Manufactured only by
OAKITE PRODUCTS, INC., 52G Thames St., NEW YORK, N. Y.

OAKITE
TRADE MARK REG. U.S. PAT. OFF.
Industrial Cleaning Materials and Methods

INDUSTRY'S ACCEPTED STANDARD OF CLEANING SINCE 1909

CASCO Cataphote Reflectors

REG. U.S. PAT. OFF.

These approved type Reflectors will add to the safety of your fleets. The strong warning reflection helps prevent many night accidents. Required by law in many states, but an added precaution everywhere. Attaches easily to truck, bus, or trailer—to any flat surface or by use of bracket, at any desired location or position. Order thru your wholesale house or write us for further information.

Casco No. 5 $1.50
Red, Amber, Green, White

Attaching Bracket

Prices—No. 5 Black Frame $1.50
No. 5C Chrome Frame $2.00

Colors—Red, Amber, Green or white

• FEATURES

- Powerful beam of reflection with an extreme range of 800 feet. Average range 600 feet.
- Visible at any angle up to 63° (200% in excess of S. A. E. requirements).
- Reflecting unit silvered directly on glass and sealed against dust and moisture, thereby increasing the life of the unit.
- Equipped with Genuine LIBBEY one-piece Captaphote, the same high-grade glass as used on state highways and railroads. No buttons to get loose or out of focus.
- Lens securely encased in rigid grille-type pressed metal housing, affording protection against breakage. Lens cannot work loose.
- Universal bracket makes any type of installation a matter of minutes.

Pat. No. 1906373

Outside diameter, 5"
Lens diameter, 4"
Shipping weight, 1¼ lbs.
Packed in individual display boxes. Bracket supplied with each unit.

CASCO PRODUCTS CORP., BRIDGEPORT, CONN.

General Motors Bldg., Detroit

27-Vehicle Fleet Gets the "Cream"

(*Continued from page 60*)

seeing him at work and thus are able to check up on him regarding courtesy, careful driving and his work in general. The fact that a driver must know the people on his route and sell himself to them is especially driven home to them. Then, too, he is always urged to bring new members into the organization, and so well are the drivers imbued with this thought that they can truthfully be termed driver-salesmen.

Frequent meetings of the drivers which are presided over by the fleet superintendent help a lot to keep the men on their toes. All sorts of topics pertaining directly to their work and also to the affairs of the cooperative organization are discussed, and on every possible occasion the important place they have in the organization is emphasized. So well has this emphasis been made that Mr. Brown said one of their biggest assets is this well-trained high-grade group of driver-salesmen, who, he stated with much pride, will stack up with the best of them.

Discussions also often turn to safety and road courtesy. That the men are safe drivers is best evidenced by the fact that there has been only one serious accident since the Cooperative was organized; this was a collision at an intersection and a close check showed the cream truck was going approximately 35 miles and the car with which it collided appeared to be traveling 70 miles an hour. Concerning road courtesy, Mr. Brown said he remembers of only one complaint received during that same long period.

As is the case in any big fleet, the men like to drive the newer trucks and so as an incentive to do this, men who keep their engines and trucks unusually clean are given the newer trucks and also whenever possible the better routes. Each man cleans and greases his own truck, and must wash it every day if necessary.

Because of the steadily increasing business done by the Dairymen's Cooperative Creamery, it was necessary in 1931 to build a new plant, 140 feet by 200 feet in size. This is of modern brick construction and is equipped with sixteen 500-gallon pasteurizers and cream vats and four 300-gallon pasteurizers and three 1500-pound butter churns. At the time of its organization, the creamery utilized four 300-gallon pasteurizing vats and one 1000-pound churn; in 1927, another churn and four additional pasteurizing vats were added; and in 1929, a third churn and four more vats were necessary. Although 4,500,000 pounds of butter were manufactured last year, the equipment has a capacity large enough to manufacture 8,000,000 pounds a year and the plant is provided with sufficient refrigerating and steam equipment to produce 30,000,000 pounds a year.

The old frame creamery plant, which is 75 feet by 125 feet in size is now utilized as a garage. It is planned to build a new garage, land with an area 300 by 300 feet already having been purchased on which to construct it. A trained mechanic is employed in the garage. The garage equipment includes a full set of tools, brake-lining machine, power drills and emery wheels, valve-refacing machine, etc. Each truck usually travels around 45,000 miles before any reconditioning work is necessary.

Dairying is a leading industry in the valley and, thanks to the efficient management of the farmer's Cooperative, members have consistently received in this case more than the same volume of fat would have

brought if it had been sold on the daily market, non-cooperatively, at Caldwell.

The average daily cash prices of butter fat in cents have always been less than the average daily cash prices received by the Cooperative members. The higher prices, certainly, are attributed to the "Cooperative." (See Table II on the second page of this article.)

The total figure for increased return, including stock dividend, for 1933 was $155,867.10 or 28.84 per cent more, and for 1934 the same total was $184,411.03 or 24.44 per cent more. The grand total of returns to members above cash price for the ten years that the Cooperative has been in existence is $1,112,229.89.

The Dairymen's Cooperative Creamery of Boise Valley started operation in a small building in Caldwell on May 15, 1925, with 365 producer members and three motor trucks. Operating capital in part was furnished by local business men, but within eight months after the plant was started all stock held by others than dairymen was retired. Present membership includes 3,700 producers, and the annual output is approximately 4,500,000 pounds. In its never-ceasing campaign to increase its membership-roll, the organization makes effective use of the slogan "Every Member a Fieldman" which is printed on billheads, special stickers, letterheads and all literature. Of course it also appears on all trucks as shown in accompanying illustrations. Another slogan, "It's the Figures on the Checks that Count," has a direct pocketbook appeal that cannot be denied.

There are seven creameries in Boise Valley, and the Dairymen's Cooperative Creamery takes around 50 per cent of the product in the valley. Every pound of butter not consumed locally, is marketed through one Los Angeles concern under a cooperative agreement made through regional cooperative marketing agencies. "Arrowrock" is the trade name of butter sold locally. Ice cream is also made and sold within a radius of 30 miles of Caldwell. Powdered milk is another manufactured product.

A total of seventy-six people are employed by the creamery, twenty-eight of whom are in the plant. M. O. Cowling is president, Roy Harmon, secretary, and J. R. Brown, manager. Besides Mr. Cowling the directors are as follows: William Wilkinson, Monroe Dillie, William Holman, and C. A. Olison.

●

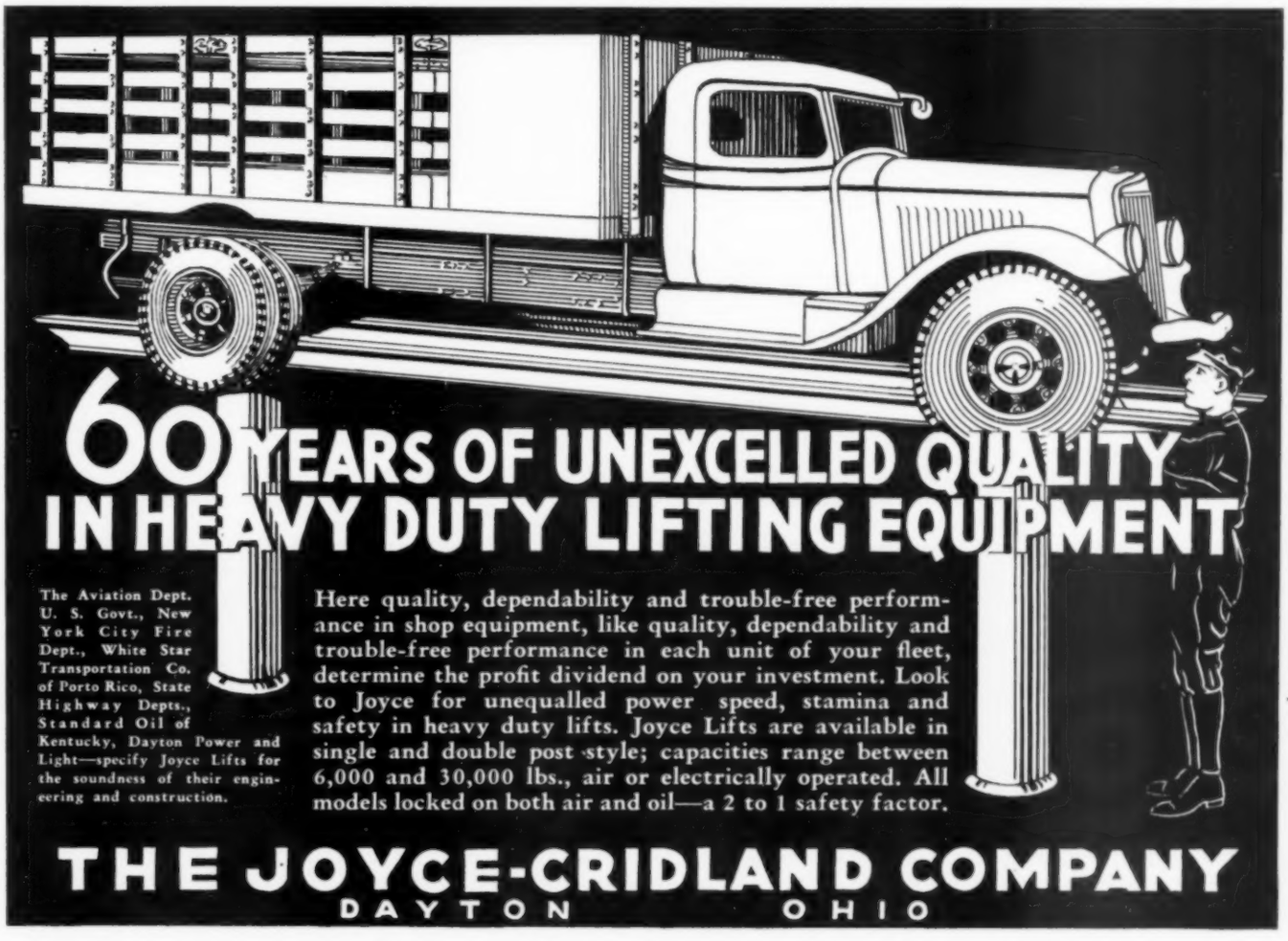
Should Truck Springs Be Lubricated?

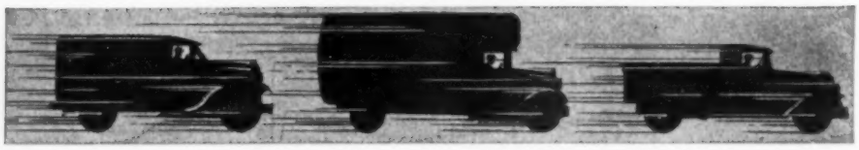
(*Continued from page* 26)

three times a year should be sufficient, and this will also give you an opportunity to check over other related spring parts, such as clips, bolts and shackles.

Naturally, many operators will not see their way clear to go to the trouble of doing this, and will continue to use the spray method. In this connection it has occurred to one executive that the use of a *colloidal* graphited oil would be of some value for this purpose. Admitting that it is difficult to inject a pasty, sticky graphite grease between the leaves, does it not seem much simpler to *spray* the graphite between the leaves? Of course, in doing this, better results may be obtained by jacking up the frame of the vehicle sufficiently high so that none of the weight rests on the springs, when there should be a slight tendency for the leaves to separate from each other.

(*Please turn to page* 65)


60 YEARS OF UNEXCELLED QUALITY
IN HEAVY DUTY LIFTING EQUIPMENT
The Aviation Dept. U. S. Govt., New York City Fire Dept., White Star Transportation Co. of Porto Rico, State Highway Depts., Standard Oil of Kentucky, Dayton Power and Light—specify Joyce Lifts for the soundness of their engineering and construction.
Here quality, dependability and trouble-free performance in shop equipment, like quality, dependability and trouble-free performance in each unit of your fleet, determine the profit dividend on your investment. Look to Joyce for unequalled power speed, stamina and safety in heavy duty lifts. Joyce Lifts are available in single and double post style; capacities range between 6,000 and 30,000 lbs., air or electrically operated. All models locked on both air and oil—a 2 to 1 safety factor.
THE JOYCE-CRIDLAND COMPANY
DAYTON OHIO



Why Do Trucks SPEED?

They don't speed just for the fun of it.
They speed in order to make up wasted time . . . . or to get through early in order to have spare time later in the day.

HERE'S THE BEST CURE

Remove the *cause* of speeding. Have it impossible to "make up" wasted time by seeing to it that this wasted time will show up on the chart of the *Servis Recorder*—where you can see it and correct it.

Notice on the chart below, how the truck stood idle from 2:00 to 4:00 in the afternoon. No chance of making up that delay, even if the driver does speed and does get through on time. The driver knows this, so he doesn't speed and he doesn't have accidents. He doesn't even waste time.

What Insurance Companies Say

That's the way to cure speeding, and that's why many insurance companies are urging fleet owners to put *Servis Recorders* on their trucks. It makes each truck do a "regular" day's work, and that kind of a truck doesn't speed because it doesn't have to. *Thus* it stops accidents "before they start." It keeps trucks from getting into bad habits.

THE SERVIS RECORDER
"Keeps Trucks Busy"

Over 100,000 trucks now equipped with *Servis Recorders*. . . . Write for full information.

The Service Recorder Company
1422 Euclid Ave. Cleveland, O.

New Indiana by White

A NEW, streamlined Indiana truck, priced at $695, is announced by The White Motor Company, builders of Indiana trucks and motor-coaches, with headquarters at Cleveland, Ohio. The new model is of 11,000 pounds gross capacity and is designated as a 1½ to 2-ton job. Further details will appear elsewhere in this or next month's issue. Delivery was scheduled to start March 15th.

•

Bendix Acquires Zenith Carburetor

ACQUISITION of the Zenith-Detroit Corporation, by the Bendix Aviation Corporation, South Bend, Ind., was announced recently. The new name will be Zenith Carburetor Company, and the executive staff will continue to be headed by Victor Heftler. Both Zenith and Bendix-Stromberg carburetor companies will continue to function as they have in the past—separately, but in thorough cooperation.

•

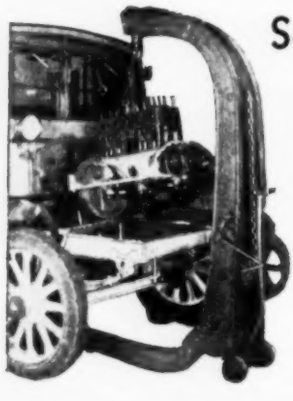
Shop Equipment Show at Phila.

THE Fifth Annual Automotive Maintenance Demonstration, sponsored by automotive jobbers in the Philadelphia area with the cooperation of Shop Equipment Associates, was held at 401 N. Broad St., on March 5, 6, 7 and 8. About 150 manufacturers took part and the clinic was well attended by automotive service men from dealers' establishments, repair shops and fleet operators. Many new equipment items were shown for the first time.

•

Dooling Heads Western Exide Branch

AFTER nearly ten years of service as Manager of the Boston Branch Office of the Electric Storage Battery Company, Thomas H. Dooling now assumes the Managership of the Company's San Francisco Branch. Since his first association with Exide in March, 1923, he has been especially active in the automotive battery field, and is well and favorably known to the trade.



Serves Many Purposes

Canton Portable Cranes are being used to advantage in scores of ways in fleet maintenance departments. For example, when removing heavy duty steel wheels, the crane can be used to raise the vehicle and then lift and remove the wheel itself. Wherever the vehicle may be, the crane being portable, can be easily taken to it—thus saving time and money. Write for full particulars.

THE CANTON FOUNDRY & MACHINE CO.
CANTON, OHIO
New York Office—Room 704
401 Broadway

ARMORPLY

A SUPERIOR METAL FACED PLYWOOD PANEL FOR BODY CONSTRUCTION

Write for samples and prices

UNITED STATES PLYWOOD CO. INC.
603 W. 36th. ST. NEW YORK CITY

Should Truck Springs Be Lubricated?

(*Continued from page* 63)

We expect that this will be "old stuff" to many seasoned fleet executives, many of whom have been using graphited spring oils over a period of years. We do not claim that the idea is new. The use of a *colloidal* graphited oil, however, appears logical, the theory being that the very, very small particles of graphite in the "colloidal" state will flow, with the oil, into much smaller crevices than the old-fashioned powdered or flake graphite, which was merely suspended in penetrating oil. Remember, now, this is only *one* of the new theories that has been advanced on the subject, and that it is not a product of *our* imagination.

Painting them with old crankcase oil, or spraying them with various spring oils, it seems, is of more-or-less doubtful value. You never will be able to tell whether or not the lubricant has actually reached the surface intended.

On the other hand now, let us assume that we will *not* lubricate our truck springs at all. For one thing, they will become quite rusted and there will always be present the hazard of breakage of main leaves, hangers, brackets and even axles. Besides, you will get a much harder ride and no conscientious fleet operator would care to have his trucks or buses ride like "haywagons."

So the entire question resolves itself in the expression: *"To lubricate or not to lubricate?"* We, ourselves, feel that there should be a happy medium struck somewhere between excessive and insufficient lubrication. Some fleet operators will take their springs apart three or four times a year and apply a graphite or other spring grease. Others will continue to speculate with the old "paint-brush" method. And still others will adopt the more modern method of spraying with special spring penetrating oils. To the last-mentioned, the colloidal-graphited oil method might be worthy of at least a fair trial. As to the time interval, we'd say not oftener than once a month for the spray or brush method, but a great deal still depends on the type of service in which the vehicle is used or abused.

In conclusion, we sincerely believe that there's lots of room for research in this direction. Our "spring specialist" friend has promised something in the early future, and we'll try to get additional data from various fleet operators. If you have anything on this subject, gentlemen, the Editor will be more than pleased to hear from you.

●

By Roy Mason., Supt., Maintenance,

Kansas City Gas Company, Kansas City, Mo.

"WE do 95 per cent of our brake relining; we also recondition our own brake drums. We get about 15,000 miles on a set of brake lining, which we do *not* think is enough. Brake drums usually last for about 60,000 miles.

Replacement brake lining is purchased from the agent of the brake manufacturer; however, we specify it by *make*. We use about 40 feet per month in our shop.

"For internal-expanding brakes we prefer moulded and flexible-moulded lining; for external, we prefer flexible-moulded. We have found a type of lining that can be used on all types of braking systems, we believe. (The Editor wouldn't let the trade name slip into this column.) We prefer to purchase brake lining in rolls and in cut-to-fit sets. Our fleet consists of 55 trucks and 34 passenger cars."

Failing in direct assault upon the walls of Troy - the Greeks resorted to strategy and the ruse of the Wooden Horse succeeded. The hidden attack turned the tide of battle and this city, which had seemed impregnable was destroyed.

Correct use of colloidal graphite is the proper strategy to employ against the hidden attack of friction. ◆ "Dag" Brand colloidal graphite, as manufactured by the Acheson Process, is unusually inert chemically. This fact should be of particular interest to users of the new cadmium-silver and copper-lead bearings which are coming to the fore in the automotive field. ◆ Break-in oils, including both top cylinder and crankcase lubricants, containing this brand of colloidal graphite assure products that are of distinct value in providing extra protection against wear. ◆ Furthermore, colloidal-graphited spring spray oils are finding increased popularity. The ability of colloidal graphite to penetrate the closest fits together with its lubricating properties make this material ideal for this application. ◆ Excellent brands of these run-in oils are now on the market. Send for Technical Bulletins 200C and 112D.

REG. U.S. PAT. OFF. dag COLLOIDAL PRODUCTS Acheson

COLLOIDS CORPORATION

FOUNDED [1908] AS ACHESON OILDAG COMPANY

PORT HURON MICHIGAN

Let nobody argue with you about GOVERNORS

AT least one item of truck equipment you can always specify promptly and confidently. Nobody can honestly argue with you about Handy Governors.

For Handy pioneered the governor field—designed, perfected and patented the one outstandingly successful Governor—sold the whole governor idea to the truck industry and to Haulage—has more than a million Handy Governors in service in the world today.

Truck manufacturers everywhere recommend Handy Governor. Many of them make it an integral part of every truck they build. Fleet owners who know their costs specify Handy for every vehicle they operate.

Your Handy will cost no more than the experimental governor somebody may try to sell you. But the only way you will ever get Handy performance is with a Handy Governor.

Don't experiment. Insist on Handy!

Handy is the only Governor sold and serviced by a national organization with direct distributors in all large cities

HANDY GOVERNOR CORPORATION - DETROIT

HANDY GOVERNOR

G. M. to Enter Railway Field

IT was announced recently that General Motors plans a program of expansion into a comparatively new industry—the manufacture of Diesel-electric railway equipment. They have taken an option for the purchase of property near Chicago, where they expect to proceed immediately, through a subsidiary, the Electro-Motive Corporation, with the construction of a new Diesel locomotive manufacturing plant, according to Alfred P. Sloan, Jr., President of General Motors Corporation.

•

New FWD Camelback

(*Continued from page* 51)

the cam-and-lever type, roller mounted.

The new truck is driven by a 125 horsepower engine at 2500 R. P. M.; torque is 330 ft. lbs. Gasoline is fed from a fifty-gallon tank mounted on the running board, forced to the carburetor by a pump. The cooling system water circulation is forced by a high-capacity, shrouded impeller pump, through a fin-and-tube type radiator. The capacity is 8¾ gallons.

The oil-type multiple disc clutch in the transmission is operated by a single hand-controlled lever, the transmission gears always being in mesh. A conventional type differential in the transmission compensates for the difference in distance travelled between the front and rear wheels. Power is exerted directly from the transmission equally to all wheels. The number of wheels is six or ten according to the option of the purchaser. All wheels are equipped with size 10.50 x 20 balloon tires.

Any type of body desired is furnished by the FWD Company—tank bodies, racks, platform, stake bodies and utility bodies are merely suggestive of a great variety. For complete specifications and descriptive literature covering this new model, address The F. W. D. Auto Company, Clintonville, Wis.

ORDER A TRIAL CAN

CHANGE YOUR OIL ONLY ½ AS OFTEN

GLAZOIL, added to your present motor oil, will halve your oil costs—you change ½ as often. GLAZOIL cuts repair bills too—"runs-in" new motors properly and lengthens life of old motors. Won't burn—won't freeze—won't break down. Keeps all wearing surfaces constantly "wet" with lubricant. Write us today for complete data. The Glazoil Products Co., 1614 Coutant Ave., Cleveland, Ohio.

Glazoil

COLLOIDAL GRAPHITE

REDUCES FRICTION—PROLONGS MOTOR LIFE

INCREASE SHIPPING FLOOR CAPACITY

MAKE EXTRA TRIPS WITH TRUCKS YOU HAVE NOW

~ BY USING ~

"ROLOFF" DEMOUNTABLE BODIES

ASK US HOW

ROLOFF, INC.

KENDALL SQUARE
CAMBRIDGE: MASS.

Fleets Can Cooperate for Safety

(Continued from page 30)

do get a ticket have it fixed without paying any fine and without appearing in traffic court.

We have found here in Cleveland that every dollar spent to promote safety will bring back two dollars if it accomplishes its purpose. When we figure that department stores in Cleveland had twelve times as many delivery truck accidents in 1928 as they will this year, we can figure that they have saved thousands of dollars in insurance premiums, thousands again in repairs on equipment, thousands in possible hospital bills. And what about the good will? No matter whose fault the accident was, the commercial operator always gets the blame.

Delivery truck operations were and still are in a great many places notoriously bad, because nothing was done to make them good. Nothing constructive was done to change the driver's point of view. Nothing was done—in Cleveland at least—until the Safety Council here started its Community Contest among department stores, to cut down the number of accidents, cut down accident costs, save good will for the stores that was lost every time a store's delivery truck crashed or nearly crashed some prospective customer's machine.

Let me give you some interesting figures:

In 1928, before the safety campaign really started delivery truck drivers averaged only 5,856 miles to an accident. In 1929, with the campaign under way, they averaged 17,906 miles to an accident. In 1930, it was 28,644 miles; in 1931, it was 43,927 miles; in 1932, it was 46,764 miles; in 1933, it was 45,392 miles. And in the first six months of last year—1934—these drivers averaged 61,500 miles to one accident.

And remember that by an accident I mean anything reportable to an insurance company—anything at all, whether it was the driver's fault or the other fellow's.

What is the Community Contest conducted by the Cleveland Safety Council which brought these results, which saved the stores thousands and thousands of dollars in insurance premiums, repair bills and good will?

Well, the first thing to know about it is that it goes on all the time. It's perpetual. And let me suggest here that any contest which starts and then stops and then starts again isn't much better than no contest at all, for the driver, after each contest ends, feels the lack of incentive. The Cleveland Community Contest goes on all the time, with cups to the winning companies and individual button awards twice a year to the driver.

●

By Geo. A. Hogg, Supt. Trans.,

Scranton Electric Company, Scranton, Pa.

"SPRING repair work for our fleet is all farmed out to a spring specialist, which is also our source of supply on replacements. The installation work is done in our own shop.

"When springs flatten out, most of them are renewed; that is, the lower-priced springs are replaced and the higher-priced ones repaired. Springs are inspected approximately every three months and lubricated when necessary, using a spray of light oil.

"Some of our equipment has spring covers. We prefer the threaded type of shackles. Our spring maintenance practice is the same on trucks and passenger cars. We do not favor the use of graphite between the leaves."

TO CUT PISTON REPLACEMENT COSTS

An increasingly large number of fleet operators are changing to TIN-PLATED PISTONS for replacement, because a more fool-proof cylinder reconditioning job results, and because replacement costs are reduced substantially.

Tin-Plated Pistons are now available thru the authorized wholesalers of the following progressive piston manufacturers.

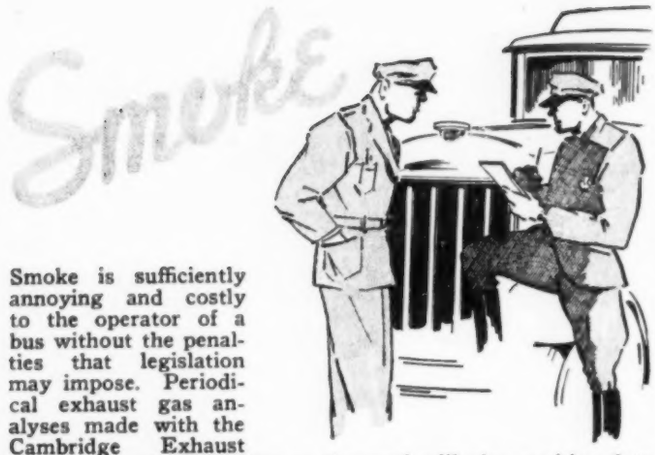
ALUMINUM INDUSTRIES
KING QUALITY PRODUCTS
SEALED POWER
STOVER-SWARTZ
DALL
McQUAY-NORRIS
SPENCER-SMITH
THOMPSON PRODUCTS

Tin-Plated Pistons are now being used as original equipment by these outstanding car and truck manufacturers.

CHEVROLET	PONTIAC
OLDSMOBILE	GMC
STUDEBAKER	MACK
BUICK	WHITE

CIRCO PROCESS IRCO

CIRCO PRODUCTS CO., *Cleveland*



Smoke is sufficiently annoying and costly to the operator of a bus without the penalties that legislation may impose. Periodical exhaust gas analyses made with the Cambridge Exhaust Gas Tester while running on the road will give positive data for adjustment which will not only stop the expensive smoke nuisance but will also result in maximum economy and power. Because this instrument will withstand road shocks and pointer does not waver or jump it is just as readable and accurate on the roughest road as it is in the shop.

Send for Booklet 144E

Cambridge Instrument Co., Inc.
3732 Grand Central Terminal
New York City

CAMBRIDGE EXHAUST GAS TESTER

11" x 8" x 8"—Wt. 29 lbs.

For Economy and Comfort

SPONGEX

Sponge Rubber

Seat Cushions

ARE UNEQUALLED

Write for our booklet
"A New Way To Ride on Rubber"

THE SPONGE RUBBER PRODUCTS CO.
Derby, Connecticut

LITHOFORM

STOPS PAINT POPPING ON TRUCK PANELS

Lithoform is a new liquid chemical for treating galvanized or galvanealed truck panels to prevent paint failures.

The chemical is easy to use; in-expensive; foolproof; and one application is enough for all time.

Ask for Bulletin No. 7-2A1

AMERICAN CHEMICAL PAINT CO.
AMBLER, PA.

Dynamometers Cut Running-In Costs

(Continued from page 29)

from a lengthy paper on "Modern Motor Coach Shop Practice," which Mr. Hurlock presented before the New England Section of the Society of Automotive Engineers some time ago. We felt that this portion, having to do with dynamometer testing, was particularly interesting, and acknowledge our indebtedness to the S.A.E. for their kind permission to publish it.—H. C. F.)

●

New United Parcel Service Unit

(Continued from page 32)

vacuum to eliminate the necessity of pulling the vacuum on the entire line at each application of the brake.

This vacuum tank speeds up the brake operation on the rear wheels of the trailer, as the vacuum pull travels only from the storage tank to the booster, (about 6 ft.) instead of all the way from the engine, which furnishes the vacuum braking power. The tank "stores" sufficient vacuum for three or four applications of the brakes even after the engine is stopped. The tractor also has Lockheed hydraulic brakes controlled with a BK booster operated by a foot pedal.

The mechanism on the rear of the tractor to which the trailer connects, is mounted in rubber to absorb shocks. The mechanism is semi-automatic and can be disconnected and reconnected in two or three minutes. The trailer and tractor are equipped with individual turn-signals, one located on the rear of the trailer, the other on the side of the cab. They are controlled with one switch and operated from the cab as are stop lights, clearance lights and tail lights.

United Parcel Service, as you no doubt know, is a consolidated delivery organization, serving department stores and specialty shops. They operate over 1,500 trucks—about 800 in New York City, over 600 on the Pacific Coast and a large fleet in Cincinnati, Ohio, as well. W. D. Bixby is manager of motor equipment for the United Parcel Service organization. He is glad to pass on, from time to time, operation and maintenance experience, for the benefit of other fleet operators who read this publication.—EDITOR.

●

UPS Body Has Maximum Load Space

(Continued from page 33)

body pillars were erected. The pillars were cut to fit into the square tubing. Instead of having to mortise the uprights into the bottom sills of the body, they were merely inserted in the square tubing. This eliminated much wood work and blacksmithing. If this method had not been used, of course, all of the uprights would have had to be ironed up by blacksmiths. All of the welding was done by the arc-welding process and required comparatively little time.

This body was mounted on an old Model 15 White chassis. The aim was to get a capacity of 300 cubic feet. To do so, a space was built over the driver's head, giving the body the appearance of a small furniture van. The body is 9 ft. long behind the seat; 62 inches wide, and 69 inches high on the inside in the main part of the body. The height in the well-section is 80 inches.

Instead of leaving the whole rear end of the body for doors, a 32" opening only was provided. Double doors, each 16" wide, were installed, the doors extending from the top of the body to the bottom of the floor well.

A 3" steel pipe was bent in the proper shape for a

rear bumper, the supports of which were arc welded on to the bottom of the well.

The body contained, when finished, 295 cubic feet of loading space, including the space in the rear well and above the driver's seat, and that between the sides of the body and the flange alongside of the chassis frame, after deducting the space occupied by the wheel-housings. The spaces alongside of the frame are good only for small packages, but in package delivery work this space can always be utilized to advantage. This seems far better than to floor it over and let mud and dirt accumulate in the useless space under the floor between the body sills and the chassis frame as happens with a conventional job.

It was found when the body was completed that no truss rods or braces of any kind were necessary as the 8-gauge steel when flanged up and welded was much stiffer than the conventional type floor supported by wooden cross members. Originally, it was thought that it would be necessary to brace the sides and rear wall by the use of truss rods extending under and across the chassis but this was not required. In fact, the United Parcel Service is now having 25 of these bodies built, using 10 and 12 gauge steel instead of 8-gauge, as it is thought that the 10 and 12 gauge steel will be heavy enough.

●

New G-E Refrigerated Body

(*Continued from page* 42)

crannies to give rise to corrosion, odors, or unsanitary conditions. Moreover, the cooling coils are located in a position where they are thoroughly protected from damage.

The heat leakage through the insulation never enters the refrigerated compartment, being absorbed directly by the cooling coils before it can reach the interior.

The cooling surfaces are distributed uniformly throughout the refrigerated compartment. This assures a uniform temperature of the desired degree throughout the compartment.

Since the coils are on the outer surface of the compartment lining, there is no possibility that a leak might admit the refrigerant gas into the load compartment where it would spoil the contents.

The cooling coils are made of one continuous, unbroken piece of copper tubing—a very important feature from a reliability standpoint. There are no piping connections to break as a result of truck vibration or road shock and thus cause leaks. The coils are arranged on the outer surface of the refrigerated compartment in such a way as to utilize to the best advantage the large area of wall and ceiling for cooling surface.

Three standard body sizes are available. The machinery compartment on all bodies is located in the forward end, principally for the purpose of obtaining simplicity in the drive assembly from the truck transmission.

On the 315-gallon body, there is an empty can compartment at the rear of the refrigerated compartment. The walls of the empty can compartment are reinforced with specially designed steel ribs, spot-welded to the body. This affords protection of the body panels from the load. The compartment is ventilated by louvres located near the top.

The 420-gallon body is essentially the same as the 315-gallon equipment except for the body height and the size of the compressor unit.

● *Send this letter, on your company stationery, to The Hygienic Products Company, Canton, Ohio. There is no obligation. It will be the means of saving you maintenance money.*

take a letter!

Gentlemen:
Please send me a fair trial of Sani-Flush to clean out radiators of cars or trucks in our fleet. This does not obligate me or my company in any way.
Very truly,
(Signature)

● Dirty or clogged radiators in salesmen's cars or trucks are a costly neglect. They rob power. They overheat motors. Cause expensive repairs.

Cleaning a radiator *thoroughly* is neither difficult nor expensive. Sani-Flush does it safely and quickly.

Try Sani-Flush at our expense. You can buy it in 25-pound pails that bring the cost-per-cleaning down to 6 cents a car. 15 cents for the largest truck or tractor.

RADIATORS SHOULD BE CLEANED REGULARLY. ESPECIALLY AT THE TIME WHEN ANTI-FREEZE IS BEING DRAINED. NRA

MASTERCRAFT
TRUCK BODIES
Production
and
Custom Built
Body Equipment
Vocationally Designed
LUCE MANUFACTURING CO.
Lansing, Michigan

The New HALL Model E-J
ECCENTRIC HALL
Valve Seat Grinder
ONLY **$89.00**

● Why pay more for less when you can own an ECCENTRIC Seat Grinder at this new low price? Identical in principle with Hall Production Grinders in use by leading factories. Handles any type seat of any metal to 2½" dia.

Comes with Diamond Dresser in metal case. Wheel and Pilot sets for one or more car makes are priced as low as $14.50 additional.

See the E-J Grinder at your Jobber's or send for literature NOW.

THE HALL MFG. CO., 1620 Woodland Ave., Toledo, Ohio

THE LAST WORD IN MODERN BODIES

Your name on a Gerstenslager-Built Body means you have selected the best . . . a body of superior design that is built better, will last longer, yet cost no more!

Ask for the list of satisfied owners. They would accept no substitute. Profit by their experience and take the gamble out of your choice.

Put your problems up to leaders and specialists.

THE GERSTENSLAGER CO.

"Just Good Bodies—Nothing Else"

WOOSTER, OHIO

Now Celebrating Our 75th Birthday

THE BARLUM HOTEL

TWENTY STORIES OF SOLID COMFORT ■ 810 OUTSIDE ROOMS EACH WITH TUB AND SHOWER BATH ■

$2 A DAY AND UP

in Detroit

CADILLAC SQUARE AT BATES STREET

Synthetics Solved Our Paint Problems

(*Continued from page 25*)

reduction or too heavy a coat will result in runs or sagging. An over-heavy coat may also cause wrinkling.

It is important to adjust the gun properly with synthetics. Better atomizing comes with a more closed adjustment and higher pressure than would be used for lacquers. Poor atomizing, using too rapid a drying thinner, or spraying synthetics cooler than the room temperature are other causes of orange peel. Holding the gun too far from the job or using too fast a thinner may result in poor gloss or a dusting effect. This is due to the fact that the pigment doesn't have a chance to set properly in the vehicle.

Overnight drying of synthetic enamels is usually allowed, before lettering and striping is done. This avoids any danger of lifting. If you are a user of gold-leaf, it may be necessary to allow the finish to air-dry as much as forty-eight hours. This will avoid any bad effects from the use of whiting or powdered chalk.

After the lettering and striping has dried, we always go over the entire job with a coat of clear synthetic. This protects the lettering and improves the appearance and durability of the whole job. Wheels and chassis parts on our entire fleet are sprayed with two coats of red synthetic after the undercoats have been applied.

There's just one more tip that we might offer: Provide a special synthetic spraying room, adequately ventilated, and absolutely free from drafts, dust and excessive moisture. This is just as important as having your spraying equipment in 100 per cent condition. If the weather is damp, it is best to allow more drying time. Give yourself plenty of light too. Floodlights are a real help in getting even strokes with just the right amount of overlap.

Synthetic enamels are simple to use, and they give wonderful results, more economically and in less time than any suitable finish, except lacquers. But there is a technique in getting best results from them, and the more you use them the better acquainted you will get —and the better you will like them, too.

(Editor's Note: We are grateful to Mr. Bradley for his refinishing experience which you have just read. And also to Jack Mitchell, the Foreman of his Paint Department. And, last but not least, to the photographic staff of Sherwin-Williams, for their assistance in obtaining the excellent pictures which accompany this article.—H.C.F.)

PHILADELPHIA'S MOST CONVENIENT HOTEL

600 Rooms, each with bath
Rates from $2.50

UNLIMITED PARKING

HOTEL PENNSYLVANIA

39th and CHESTNUT STREETS

Modernizing an Old Fire Truck

(*Continued from page* 34)

that they now have a modern truck made from an older truck that had already seen seventeen years of service.

This story does not by any means describe the first time that the oxy-acetylene welding or cutting process has been able to save the citizens of a city or town a considerable amount of money, nor does it describe the first time that the process has stepped into the gap left by depleted finances to modernize equipment that is highly essential to the safety and welfare of the people. Although the service which the blowpipe has given to fleet operators for many years in many different ways is widely known, such activities as the modernization of fire fighting equipment, are always newsworthy.

●

Kingan & Co. Have Big Fleet

(*Continued from page* 36)

products' trade name "Reliable" stand out in blue and white letters. Painted on each truck is also the company's distinctive trade mark, an old mariner at the wheel of a sailing vessel. The trucks are frequently washed and polished and so are always attractive in appearance and serve the company as very valuable advertising mediums.

Kingan and Company also make use of heavier trucks and semi-trailers equipped with refrigerator bodies for intercity work. These average 75 to 500 miles of travel a day, while the city trucks go from 25 to 50 miles a day. The company usually services its own trucks. In its shop at Indianapolis, which is equipped with the latest types of tools and machinery, six mechanics are employed.

Kingan and Company have a very interesting and colorful history. In 1845, three brothers, Samuel, Thomas D., and James Kingan started in the meat packing business in a small way in Belfast, Ireland. It was the custom in those times for the packer to buy the dressed hogs from the farmer and cure and pack the shoulders, hams, and middles. The Kingan brothers not only handled the product of Irish hogs but were also importers of American meats. Their product soon gained a most favorable reputation, owing to the special cure they used. The business grew rapidly and to take care of the increasing demand they decided to open a house in the United States. Their first plant in this country was located in Brooklyn, New York, in 1851.

After a brief stay there, during which their activities were largely confined to packing meats for export to Great Britain, they moved to Cincinnati, Ohio, then an important packing center. This was in 1853. Their business continued its healthy growth in Cincinnati and it again became necessary to get closer to the hog supply. In their operations, they had found that the best quality and most suitable hogs for their purpose came from Indiana, so late in 1862 they moved to Indianapolis, where their main plant has since been located.

Such, in brief, is the history of what is now Kingan and Company of Indianapolis. It represents eighty-nine years of sound, steady development.

VELLUMOID

Wherever you find the word, VELLUMOID, whether on sheet packing or gaskets, you can rest assured that you have a quality product which will stand the gaff of the hardest service.

Always uniform, with just the right amount of compressibility, it is always ready for use.

Look for the Word

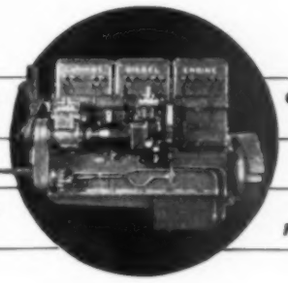
"VELLUMOID"

The Vellumoid Co., Worcester, Mass.

IMPROVED

CUMMINS DIESEL

for heavy-duty trucks



CUMMINS presents another distinct achievement—the greatly improved "HA" engine for heavy-duty trucks.

In millions of miles of service, the former "HA" CUMMINS DIESEL has made a brilliant record of dependability and amazing economy. The improved "HA" engine establishes greatly advanced standards of performance—greater power efficiency; greater fuel economy; more remarkable accomplishments in every respect.

Why continue to operate with expensive gasoline power? Be wise—DIESELIZE! And be Diesel-wise—install CUMMINS Diesels. Remember, there is no other Diesel like the CUMMINS Diesel. 95% of all Diesel powered trucks in the U. S. use CUMMINS Diesels!

CUMMINS ENGINE CO., COLUMBUS, IND.

—The Leader in Diesel Engineering Advancement

SALES AND SERVICE FROM COAST TO COAST

FORD HAND BOOK

FORD MODELS V-8 B and A CARS

By VICTOR W. PAGÉ

Compare with anything you have or anything you know about. 715 pages; 319 illustrations for $2.50.

This work has been prepared with the full co-operation of the factory service department, and is illustrated with clear and distinctive drawings showing all mechanical parts with the components indicated by plain, descriptive lettering. The construction and operation of the important parts of the chassis and power plant is made so clear that even a novice can derive instruction and benefit from the text and illustrations.

The book is written in simple, non-technical language, and it is specially valuable to Ford owners who maintain and repair their own cars. The general repairman will find many short-cuts explained for repairing all parts of the car, and various special tools and fixtures are described in detail to facilitate the work. **The latest syncromesh transmission is explained in detail, also all details of the V8 engine.**

Suggestions are given for driving and upkeep, trouble shooting on the road and in the shop, power plant overhauling, systematic location of defects in the carburetion, cooling or ignition systems, also complete lubricating instructions and description of **new downdraft carburetor and distinctive V8 ignition system.**

This Book May Be Obtained from

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All-Around Maintenance Man Available (Adv.)

A MAN who can make himself generally serviceable around a garage, factory or plant is in need of a position. He is not to be confused with the ordinary "handy-man" as he is a first-class mechanic on lathes and other shop machinery, a good electrician, carpenter and general mechanic. Can also do pipe-fitting and plumbing; in fact any kind of precision work requiring the use of tools. Salary of secondary consideration. Location, Brooklyn or Metropolitan New York preferred. Address C. P., c/o Editor, FLEET OWNER, 90 West St., New York City.

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MARMON-HERRINGTON all-wheel-drive trucks and truck-tractors are in use the world over. They are giving a remarkable degree of service, no matter what the conditions under which they are called upon to operate. More and more Marmon-Herringtons are being purchased each year, not only abroad but in the United States. There could be no greater tribute to the performance, stamina and value of the finest all-wheel-drive vehicle ever developed.

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MARMON-HERRINGTON
ALL-WHEEL DRIVE

Approve Size and Weight Standards

REPRESENTATIVE business men, exercising unbiased judgment and acting as a special committee of the Chamber of Commerce of the United States, have placed their approval upon uniform motor vehicle size and weight standards adopted by the American Association of State Highway Officials.

A statement issued by the Chamber hails this approval as "a further step in efforts looking toward solution of highway transport problems."

The special committee's report will go before the Chamber's annual meeting, to be held April 29 to May 2, for action.

The report includes a statement of reasons supporting the application of uniform standards.

The members of the committee signing the report are D. F. Edwards, Chairman, President of the Saco-Lowell Shops, Boston; W. G. Fitzpatrick, Vice President, Eastern Michigan System, Detroit; Mark Graves, Commissioner of Taxation and Finance, Albany; L. J. Larzelere, President, Farquhar Machinery Company, Jacksonville; P. W. Litchfield, President, Goodyear Tire and Rubber Company, Akron; W. T. Nardin, President, Pet Milk Company, St. Louis; A. H. Swayne, Vice President, General Motors Corporation, New York and O. S. Warden, Editor and Publisher, *Great Falls Tribune*, Great Falls. Mr. Larzelere in a reservation expresses the view that, due to hazards to other traffic, future legislation should be toward a length limit of thirty-five feet for any vehicle or combination of vehicles.

Interest centers in the fact that J. J. Pelley, President of the Association of American Railroads, and L. O. Head, President of the Railway Express Agency, dissented from the entire report and submitted a minority report. A dissenting statement also was filed by Robbins B. Stoeckel, Research Associate in Highway Transportation, Yale University.

●

Novel Means of Reducing Truck Accidents?

"AN accident involving automotive equipment happens in one second" says H. R. (Spike) Holmes, general manager of the Holmes Truck Company, Los Angeles, Calif. "Prior to that second the person involved has at least three seconds to avoid it. If something is done by that person, the result is that there is no accident. And bear in mind that in most cases there are two persons, either one of whom can do something to avoid having the accident. These two persons are the drivers of both vehicles.

"Just as soon as the general public, whether they be truck drivers or touring car operators, can be educated to think in seconds, then the highways will become reasonably safe for all.

"To the operators of large fleets of trucks I would suggest nothing except that all drivers should be placed before a clock which ticks off the seconds and for every second they should have a voice say 'an accident, an accident, an accident.'

"And, by all means, back up the truck drivers by forgetting all the crack-brained, sure cures that every 'specialist' has to offer and simply get across this thought—'That an accident happens in one second; what are you doing in three seconds to prevent it?'

"Our 100 per cent clean record for over a year means only one thing, and that is that our drivers have learned that 95 per cent of accidents are avoidable. We are glad to state that mechanical failures, to which we attribute the other five per cent, have been totally absent in our fleet."

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Capper Again Urges Gas Tax Repeal

SENATOR ARTHUR CAPPER, Republican, of Kansas, is in favor of repealing the Federal gasoline tax. He introduced S. 1164 to accomplish that result. The bill was read twice and referred to the Committee on Finance.

In commenting on this bill, Senator Capper said:

"This amendment proposes to strike out the Federal tax of one cent a gallon on gasoline. This tax, which is generally regarded as discriminatory, unjust and outrageous, ought to be repealed. It invades a field that ought to be left to the States, which already have loaded the automobile and truck owners with taxes that amount to a 25 per cent annual tax on their property.

"It is my thought, and I believe it also is the belief of most members of the Senate, that gasoline taxes should be reserved for State and local units, and that these should be devoted entirely to construction and maintenance purposes. A fairly heavy tax on gasoline, when the proceeds are used on the highways, can be, and is, justified. The users of the highways should pay for their construction and maintenance.

"But here we have the motor car operators and owners today paying more than a billion dollars a year in taxes to Federal, State and local governments. This does not take into account that in most States motor vehicles also are taxed as personal property. I sincerely hope we may get rid of the unfair Federal tax at the end of the present fiscal year."

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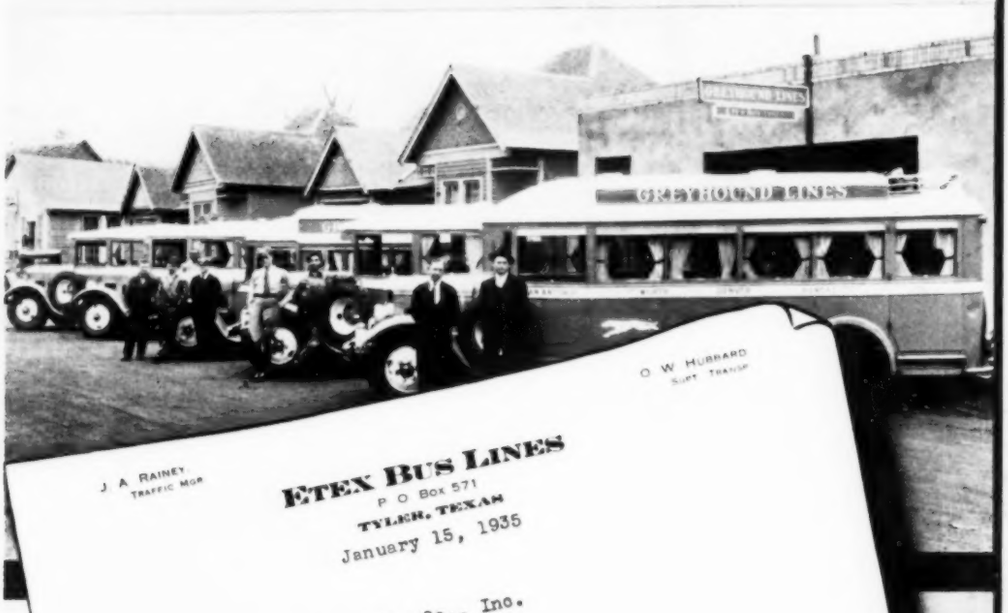

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January 15, 1935

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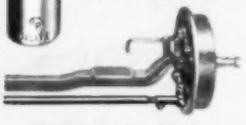

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